

Comment

An anomalous price situation in peppermint oil

These are the times that try men's souls, particularly if the men happen to be essential oil dealers who must comply with OPA ceiling prices while primary producers of certain oils are not handicapped by such restrictions.

The effect of placing peppermint oil price ceilings on essential oil dealers has been to drive the large consumers direct to the farms for this oil. Not only does such procedure tend to disrupt the intelligent, experienced service rendered for years by essential oil dealers in this oil but it also penalizes the small consumer who perforce is not in a position to deal directly with the producers. Situations such as this are bound to arise in a broadly planned program such as that of the OPA but once brought to light steps might well be taken to rectify them.

Growing popularity of sachets points the way to new profits

Under the stimulus of war, sachets are coming into greater favor. They are not difficult to make and may be perfumed as fancy dictates, with particular floral notes or with any of the intriguing bouquets offered by the essential oil houses for the purpose. Furthermore sachets lend themselves to artistic, distinctive and original packaging which has a stimulating effect on sales. Sachets therefore may well become a profitable item in any manufacturer's line.

The older pot pourris with their uncertain odors, made of unground, mixed raw materials have given way to the newer and more efficient types of sachets which more readily fulfill the purpose for which they are made.

Glycerin likely to determine amount of soap production this year

How much soap will be produced this year? The answer is unquestionably tied up with the glycerin needs of the armed forces. With virtual elimination of glycerin from civilian uses, military needs are likely to determine how much by-product glycerin is needed and therefore how much soap may be produced. While at the present time it does not seem likely, it is possible that the production of soap may be curtailed and if it is, rationing will be resorted to. If that should become necessary rationing will be worked out on a basis that will protect brands. This assurance came when OPA set specific ceilings by brand and region for all of the established makes of soap.

the American Perfumer and ESSENTIAL OIL REVIEW

C O S M E T I C S · S O A P S · F L A V O R S

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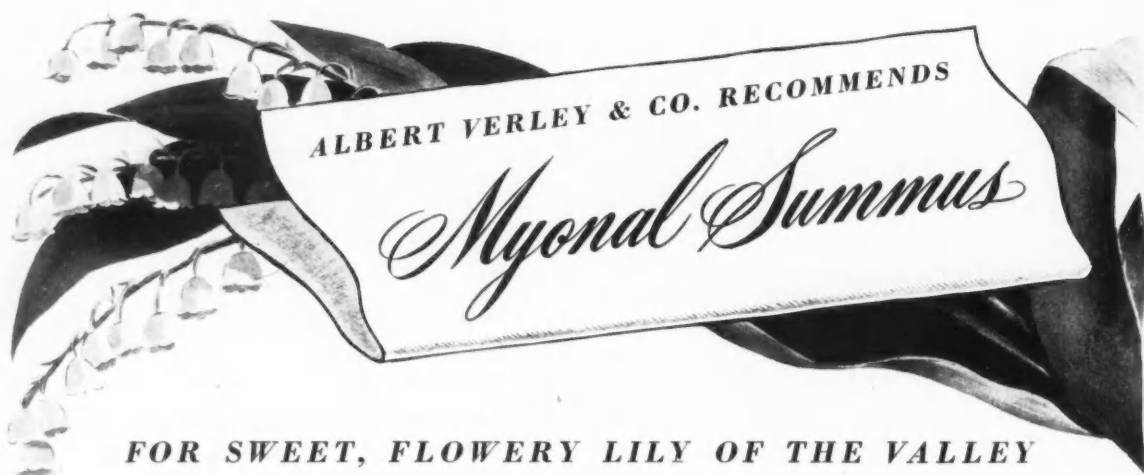
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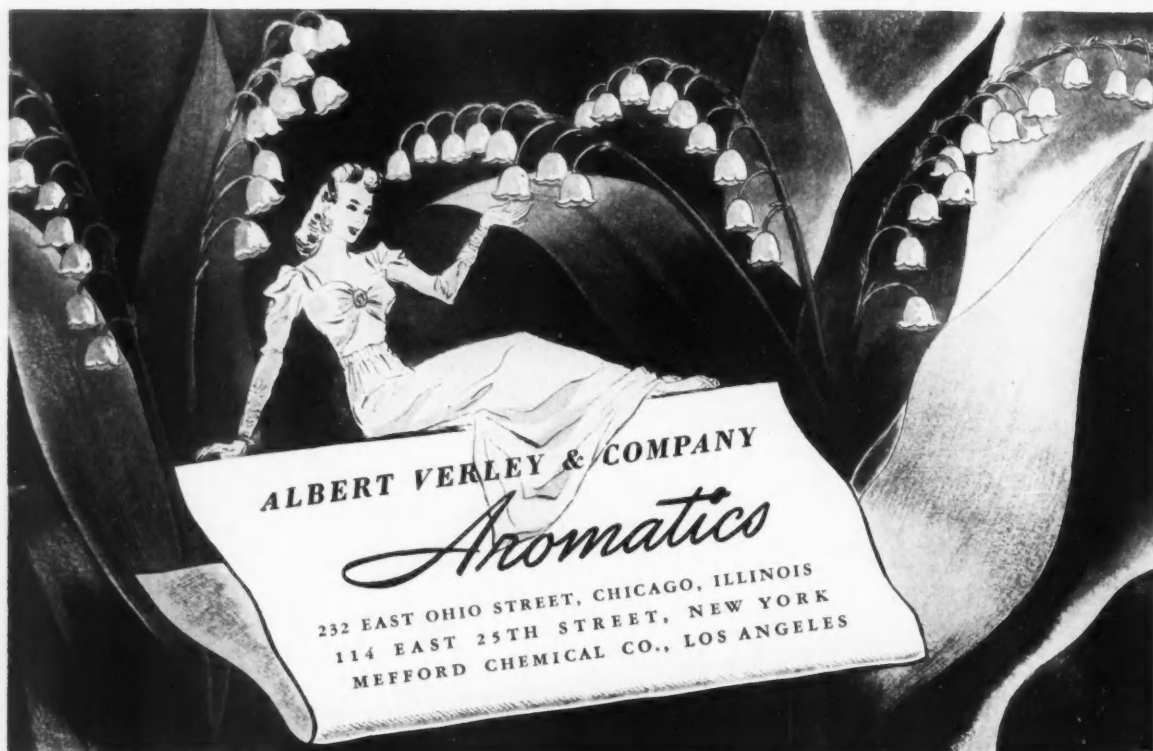
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desiderata

Comment on interesting new chemical developments and their application to cosmetics and toiletries.

by MAISON G. DENAVARRE

SYNTHETIC BEESWAX

Heaven only knows from what this product is made, but it is freely available, it is claimed. This synthetic beeswax has physical constants very much like those of regular beeswax. It comes as a *bleached* product or in a *natural* form that is more colored. The material is offered by two different houses to stretch or replace regular beeswax in cosmetic formulations. It is a good thing to know about, just in case you ever get caught short on the real thing.

GLYCERIN

The glycerin picture looks no better for a long time to come. You should go to work on replacements at once. In this connection, several replacements have recently come to the front. They are sold by trade names. Since we don't mention trade names in this column as a matter of editorial policy, let us know and we will send you the names of the materials and their suppliers.

PAPER CAPS

Paper caps are already a reality for some uses, even in the toilet goods field, but more paper caps will be ready by early fall or thereabouts. The program—like all others—is slightly behind schedule due to various reasons, but it is going on just the same. Several caps are talked about in the trade. This writer has seen but two of them. One was infinitely better than the other. The better one is not yet available. It is a



lulu. The other is nice looking, more expensive at the moment, and not quite as strong for tight sealing. It is plenty good for many products, however.

CASTOR OIL SUBSTITUTE

For use in hair dressings, where a greasy feeling is desired, a new product recently has become available. It is claimed to have the same effect in alcoholic hair dressings as castor oil. It is soluble in dilute alcohol and water.

TOOTHPASTE FLUID

The fluid (not liquid) dentifrice which is a thin paste is getting more play. Several companies are already making it. The product has none of the inherent difficulties of a paste, such as hardening, corrosion and discoloration due to metal contact. It can be homogenized or passed through a colloid mill, all of which gives finer subdivision of the flavor used. The product will pour onto a brush easily.

In compounding, selection of the vehicle and the abrasive are extremely important. Both must be right to prevent the product from separating on long standing. Alginates and light cal-

cium carbonate come first to mind. The only other things necessary are a sweetener and a flavor. Very little glycerin is needed in this kind of product. The product should be slightly tinted to be nicer looking. It does not require a metal tube, hence is interesting at least from the viewpoint of war use. It contains an abrasive, thus it combines the good point of the other type of liquid dentifrice plus the value from the use of a polishing agent.

WAR WORK

The average cosmetic manufacturer is mulling a lot of war work, and not because he doesn't want to do it. Everyone wants to help. True, it is difficult to know when and where to get the *opportunity* to bid on a job. If your local WPB doesn't know, try the nearest branch of the Small War Plants Corporation whose job is to know what will be needed, and preferably to split it up among a few smaller manufacturers. You also might write the Toilet Goods Association which may help you. Unless you are extremely expert in some job, the military will not come to you. You must seek them out, and only by doing so can you get a chance to repack, fabricate, complete, or even make what is required. There is a lot of war work you might be doing, if you can find out about it.

MERCURY BLEACH CREAMS

Dan Nealon, one of the many swell people in this industry, has chided me about my use of the phrase "so-called bleach creams" in one of the several recent replies to enquiries received by the AMERICAN PERFUMER. We discussed the matter in some detail when he came to see me at the laboratory during the A.C.S. convention. All of which recalls the good work he and the others of the External Products Research Institute have done with bleach creams containing ammoniated mercury.

These manufacturers formed a non-



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profit institute to study skin pigmentation and how—if at all—it is affected by local applications of ammoniated mercury in various concentrations. The most expert scientists, in their respective fields of radiology, pathology, pharmacology and dermatology among others, were retained to do the work. The results were first published in September, 1940 and further publications have been made since. Suffice it to say, they have found that ammoniated mercury bleach creams *do* bleach skin, and they know approximately how much bleaching is accomplished. They also know a lot of other things about ammoniated mercury which are new knowledge. Therefore, I take back the statement "so-called" and am glad to have been corrected. They are "bleach creams."

It goes to show what can be accomplished in a scientific way, if manufacturers forget the old notion that they have a novel and most mysterious formulation, the composition of which must be kept a secret from everyone especially competitors. In this modern day, there are few mysteries. Cosmetic formulation is NOT one of them. The best way to protect your secret is to patent it (if possible), not to prevent exchange of mutually useful technical knowledge. Both the chemical and pharmaceutical industries have profited much from such an open minded attitude which first became manifest after the last war.

The house of Solon Palmer, New York, N. Y., within four years will have been "Perfumer to America" for a century.—*Drug Mill*.

Color to Combat Insects

Insects have a different visual range for color than do humans. Most of them are able to see ultraviolet radiation, yet are blind to red. Night-flying insects, for example, will be more attracted to blue than they will to red—but sheer brilliance of light will be the most exciting lure. Thus for comfortable porch relaxing, the strategy is to use a bright blue bulb in some remote spot *away* from chairs and swings; and if some visibility is wanted, to rely on a weak red lamp of low wattage immediately over convivial quarters.

Numerous investigators have conducted elaborate research. Years ago the Dutch painted their stables dark blue to ward off flies. In South Africa, pink and yellow mosquito curtains have been found to harbor fewer insects than other hues. This is a debatable subject, but it does lend added fascination to the ever-compelling subject of color.—*Eagle Printing Ink Co.*

Questions and Answers

441. LIQUID SHAVING CREAM

Q: We will very much appreciate receiving information and a formula for bottled shaving cream, also your best formula for bottled dental cream. Self addressed stamped envelope enclosed for your reply. T. C., Ill.

A: A liquid shaving cream formula of the type you mention is described in The Chemistry and Manufacture of Cosmetics available from THE AMERICAN PERFUMER. One of the formulas given contains the following: 1% sodium alginate solution 45 parts, denatured alcohol 5 parts. The ingredients are mixed and passed through a colloid mill. The product is bottled in frosted glass. Other formulas are also included. Regarding a dentifrice of similar type, simply replace the shaving cream in the above formula with regular toothpaste and you will have a product of similar consistency. Another way to achieve the same purpose is to use no bodying agent in your toothpaste except a dilute sodium alginate mucilage. This will give you a pourable product.

442. NAIL POLISH REMOVER

Q: We want to make a nail polish remover that works like a "creamy emulsion." It has been called "cream nail enamel remover." We will appreciate any help you can give and enclose a stamped self addressed envelope for your reply. S. F., N. M.

A: If it is a solid emulsion to which you refer, this can be obtained by selecting the proper solvents, such as some of the glycol ethers, together with some of the acetates, such as ethyl or isopropyl acetates, solidified with higher melting waxes, such as beeswax, together with a small amount of soap, such as triethanolamine stearate. Usually these products contain no water. The amount of low boiling solvent present is also kept low to keep the product from drying out too rapidly. Ethyl lactate might be used with or without the glycol ethers. In fact, any regular nail lacquer solvent can be used if it is solidified with approximately 40 per cent of a mixture of waxes and soap. The choice of wax and the amount will determine the consistency.

443. WASHING POWDER

Q: In making a low pH washing powder, I would like to try the Welter method of dry saponification. In experimenting with this technique, I find it impossible to convert the excess sodium carbonate to bicarbonate. Is there any source of information that would

give me the smallest charge of fatty acids that can be used to give me a product free from sodium carbonate. G. D., Maine.

A: The method you mention is covered by U. S. Patent 1,560,626. Thomssen and Kemp in their book Modern Soap Making describe this process in considerable detail giving a number of examples of the types of charges that can be used. One of the examples gives the following: 1000 kgs. of distilled cottonseed oil fatty acids, acid number 202, are mixed with 50 kgs. of turpentine oil and this mixture is agitated in a mixing drum with 400 kgs. of dried calcined soda at approximately 30° C.

444. HAIR TONIC SUBSTITUTES

Q: I have a hair tonic formula that requires 50 per cent alcohol. It contains no oil, grease or fat. Would it be possible for me to substitute isopropyl alcohol in this product? Please send me a copy of your Replacements Bulletin. C. P., Pa.


A: A copy of the Replacements Bulletin has been sent to you under separate cover. You may replace the alcohol in your hair tonic formula with isopropyl alcohol. It may require less of the latter to maintain a clear solution. Take due note of its odor. In using isopropyl alcohol, allow it to mellow in the mixture as long as you possibly can before you bottle.

445. FOOD EMULSIONS

Q: Could you help us obtain information as to methods of making food emulsions of both oil-in-water and water-in-oil types. We are also interested in so-called protective hand creams. Any information or formulas will be very greatly appreciated. F. F., Wis.

A: The question of food emulsions was quite broad and we, therefore, suggest that you consult the literature of the food industry on this subject. A recent book, The Theory of Emulsions by Clayton, available from THE AMERICAN PERFUMER, describes this subject from the theoretical standpoint. Several publications of the food industry describe the subject from the practical aspect. Both vegetable gums and chemical compounds have been used as emulsifiers and some, such as glyceryl mono stearate, are capable of giving either type of emulsion. The protective hand creams were described in an article on industrial dermatitis in an earlier issue of THE AMERICAN PERFUMER which we suggest you see. This gives suggestions for formulations.

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How to Make and Package Popular Modern Type Sachets

Market expanding as result of alcohol shortage . . . Raw materials plentiful . . . How to make use of the grades of talc permitted by WPB . . . Types of odors to select and their proper fixation

WITH the decrease in the manufacture of toilet-waters due to the curtailment of alcohol, many perfume-chemists are turning their attention to such products as cream-colognes, solid perfumes and sachets. It is generally admitted that not one of the above-named preparations can possibly replace a fine toilet-water, whose character depends, not merely on the attractive odor used, but on the refreshing and cooling nature of alcohol. However, in these days of shortages we must do what we can, and while there is some hope that a satisfactory substitute for alcohol in toilet-waters may be found, in the meantime a number of manufacturers are reviving that old-time toilet preparation, "the sachet."

OLD FASHIONED TYPES

Sachets are of two types. The old-fashioned sachet, a number of which are still on the market and for which there will always be some demand, consists of mixtures of various dried flowers, spices, aromatic herbs and woods. To these mixtures suitable perfume oil compounds are often added for the purpose of fortifying the odor and for imparting a top-note to the sachet. When the mixture of ingredients is not ground, the sachet is known as *pot-pourri*. The dry ingredients are chosen for their odor value, but often when there are many materials available, the manufacturer selects those which also have attractive color combinations.

Before the war various dried flowers were imported for the manufacture of such sachets. Among them were lavender (flowers of *Lavandula vera*, Labiatae), rose buds, grown mainly in French Morocco, Roman chamomile flowers (flowers of *Anthemis nobilis* L.), blue malva or malvin flowers



War-time and alcohol limitation bring sachet into the limelight again for a variety of uses

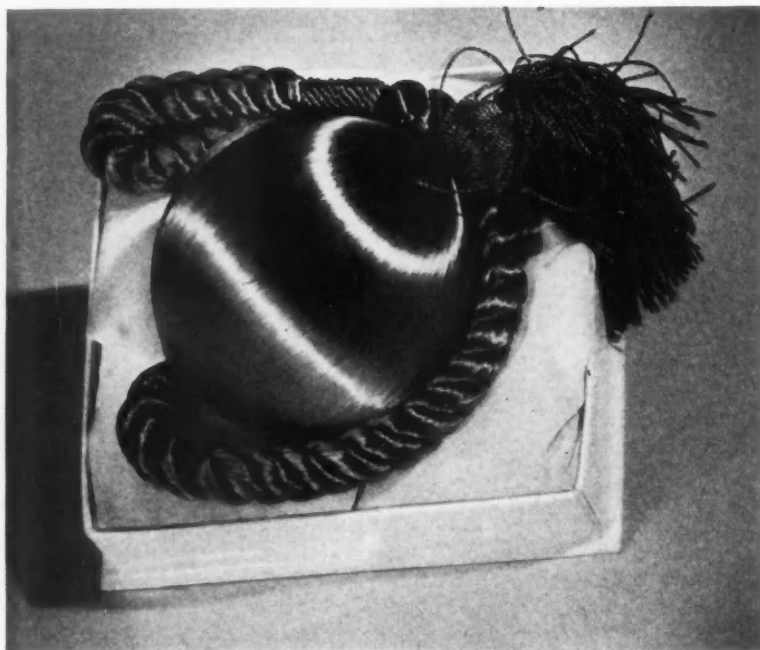
(flowers of *Malva silvestris* L.), which were used not only because of their interesting odor but also because of their bright color. In addition, there were such materials to use as ground or coarse sandalwood, cedarwood, orris root, vetiver root, patchouli leaves, and cloves.

The final mixture, in many cases with the addition of perfume oil compounds, was passed through a coarse sieve and then packed in silk, velvet or satin bags or cushions, or put up in other attractive and novel ways. Today, however, most of the ingredients named above are not available as they are practically all imported products. Even a manufacturer who has some of them on hand would have considerable difficulty in

obtaining the silk, satin or velvet for his packages.

The second type of sachet, which is usually a body-sachet, is the more modern type, and while it was developed long before the present war, it happens to be also the type most practical to manufacture nowadays.

It consists of a base, which has as a rule, little or no odor value, merely serving as a vehicle for the perfume oils that are added to it. The simplest type of base to use is a mixture of magnesium carbonate, to absorb the perfume oils, and talc to act as a filler. This mixture can be modified, of course, by the addition of powdered orris, sandalwood, cedarwood, or any other suitable material in powdered form. There has



Silken boule sachets with cord attached for use in milady's closet always have had a vogue

been considerable objection to the use of orris because it can cause irritation to the skin and in spite of its excellent odor and fixative qualities it may best be omitted.

Since magnesium carbonate and even talc are light in weight, other materials such as special types of clays, calcium carbonate and chalk are sometimes added to make the sachet heavier. There is no optimum proportion of magnesium carbonate to use; the best plan is to use only as much as is necessary to completely absorb the perfume oil so that after admixture with the talc the sachet will be dry and have no tendency to cake. This amount of magnesium carbonate will depend on the type and concentration of the perfume oil in the finished sachet. The objection to the use of too much magnesium carbonate is that, being extremely light in weight, it will make the sachet too bulky and fluffy. The concentration of perfume oil in body sachets varies from about three to six per cent.

PACKAGING THE SACHET

When a sachet is packed in silk, velvet or satin bags or cushions, it is desirable to have a textile which is very closely woven and to have the sachet powder coarse so that it will not "go through." Most powder sachets are packed in wide-mouthed bottles or jars, hence the problem of using such materials as silk is eliminated.

The perfume oil compound for the sachet must be skillfully blended, or

wisely chosen. The factors which apply in the perfuming of a face powder have to be kept in mind but even to a greater degree. While a face powder is a perfumed powder with the concentration of perfume oil seldom over one per cent, a sachet is really a powder perfume having an oil content of five per cent or over. It is extremely important to avoid perfume oil ingredients which are irritating. Then, too, the question of a lasting odor is significant since there is no *raison-d'être* for a sachet unless its odor is highly fragrant and of great lasting quality. The fixation of the perfume oil compound to be used is accomplished by the selec-

tion of suitable aromatic crystalline chemicals such as the synthetic musks, heliotropine, vanillin, coumarin, and phenyl acetic acid, together with the proper choice of resinous materials, balsams, resinoids, animal tinctures of natural musk tonquin, civet, castoreum and ambergris, as well as such oils as vetiver, patchouli, and ylang. The selection, proportions and blending of these ingredients depend on the type of odor to be used and must be left to the skill and judgment of the expert perfumer.

FAVORITE ODORS FOR SACHETS

Favorite odors for sachets are rose, lavender, carnation, violet, gardenia and light oriental bouquets. However, not only can modifications of these be employed but various novel types like mimosa, clover and others are worth experimenting with. Sweet, cloying odors are to be avoided and every attempt made to achieve a refreshing character in order to supplant as far as possible the "lift" that alcohol imparts to toilet-waters. Because of the necessity of using the types of fixatives described above, the problem of obtaining this lift becomes doubly difficult. While it is not possible to arrive at this result it should be the goal at which to aim in producing a sachet.

USE TALC WITH IRON

Once the perfume oil composition has been decided on, the manufacture of the sachet is a relatively simple matter. The perfume oil is rubbed down with the magnesium carbonate which absorbs the perfume oil readily and this is added to the talc, the color and other ingredients before the process of mixing and sieving. Any simple type of mechanical powder mixer will serve the purpose. There are no problems of



Sales of body sachet, a more modern type and practical to manufacture, are on the upswing

"slip," "lu-stre," "texture," or matching of shades, such as are involved in the manufacture of face-powder. However, it is wrong to assume that any kind of talc will do. The War Production Board prohibits at present the use of talc in cosmetics which is entirely free from lime or from iron. Talc which contains more than a very small percentage of lime should not be used for sachets because it reacts, due to its alkalinity, with most perfume oil compounds, developing after a time, an undesirable earthy odor. This problem can be solved by using a talc which contains iron but which has as little lime as possible.

USE OF COLOR ADVISABLE

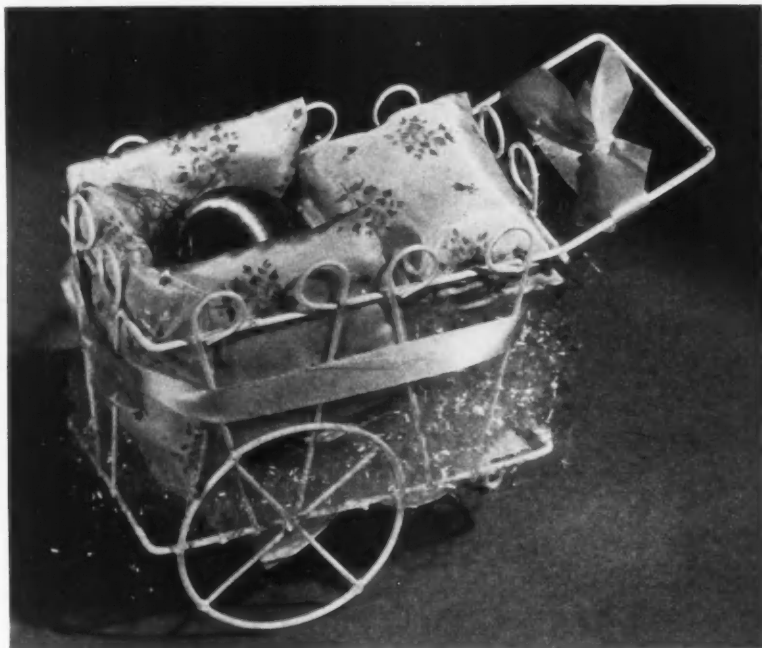
While a number of powder sachets on the market are white, it is often desirable to color them, not only to give added attractiveness but because discoloration can take place due to the perfume oil used. A little experimenting with various colors will yield results that offset this discoloration. Aniline dyes should not be used because they often react with the perfume oil. This is also true of aniline lakes. Erythrosine has been recommended in one well-known textbook on cosmetics, but it is best to use ferric oxide and other mineral pigments and lakes.

RAW MATERIALS MORE PLENTIFUL

Even when toilet-waters were in great abundance, body-sachets had a considerable sale though a limited one. But their sale is at present increasing and if there should be no relief in the alcohol situation, this increase will undoubtedly be accelerated. The very perfume ingredients which are to be avoided in the manufacture of a toilet-water of low alcoholic content, namely, large proportions of crystalline aromatics, balsams, resins, and such oils of poor solubility as patchouli, vetivert and ylang, make excellent raw materials for perfume compounds for sachets. This is an additional reason why the manufacture of sachets is increasing for such raw perfume materials are less difficult to obtain than they were last year when they were still being consumed in larger quantities for the large scale manufacture of toilet-waters and colognes of higher alcoholic content.

Alkyd Resins in Emulsions

Alkyd resins, the prototypes of which are the reaction products of glycerine and phthalic anhydride or acid, are finding new fields of usefulness in the form of emulsions. Although known for some time, it is only during the last year or so that this form of alkyd resin has really begun to come into its own. Not only the fact that their use



Sachet packaged in silk must be coarse so it won't sift through the closely woven fabric

cuts down the need for vital solvents is a factor, but also these emulsions have many other advantageous properties to recommend their use.

According to a government text on synthetic resins, alkyd resin emulsions are especially suitable for coating porous surfaces such as brick, concrete, plaster, stucco and masonry of all kinds. Since they allow the curing of the plaster to continue, alkyd resin emulsions coatings may be applied directly over fresh plaster without a sizing coat. Moreover, the usual pigments may be incorporated. Applied by brushing or spraying, they dry quickly and combine the ease of application of water paints with the durability, washability and hardness of oil paints.

Compared with oil paints, the alkyd resin emulsion paints give better coverage, are easier to apply, and are less expensive. Compared with other types of water paints (e.g. kalsomine), they give glossier coatings of greater durability and superior appearance; they seal porous surfaces better; they have greater covering capacity, and their covering cost is slightly less per unit area.

Recently, it has been reported that the alkyd resin emulsion paints have entered the protective coating field as substitutes for the oil-varnish types. Their quick drying property and freedom from paint odor make them especially suitable for hotels, apartment houses and other residences. They are finding increasing use in increasing quantities in interior wall paints

and exterior paints for cement, concrete, cinder blocks and similar surfaces.

According to the patent literature, these alkyd resin emulsions may also be employed for finishing textiles and for use in coating paper, leather and similar materials. Commercial publications describe special alkyd resin emulsions that are applicable as latex extenders, as shellac substitutes and in adhesives.

Vacations

"I believe that the granting of vacations to industrial workers this year will be helpful to war production. Experience has shown that the volume of production is increased if the workers can restore their energies through periods of physical and mental rest, change and relaxation. After a brief vacation a worker should be in better shape to contribute for increased effort."—Donald M. Nelson.

Coming Conventions

- May 18-19 Proprietary Assn., Hotel Biltmore, New York, N. Y.
- May 24-25 Flavoring Extract Mfrs. Assn., Hotel Pennsylvania, New York, N. Y.
- June 7-8 Nat'l Assn. of Insecticide & Disinfectant Mfrs., changed to Hotel Statler, Cleveland, Ohio.
- June 14-17 Amer. Pharmaceutical Mfrs. Assn., The Homestead, Hot Springs, Va.

THE WAR PARADE OF ESSENTIAL OILS AND AROMATICS

As Compiled From Authoritative Market Sources

An over-all picture of the war's impact on the primary supply market is here outlined in the belief that it may be helpful in providing a background from which to appraise the present supply problems and future possible developments. This is the first of a series to be published in subsequent issues. It is believed this series will be significant, even historic, in value to the trade, here and abroad.

Harland J. Wright
Publisher

IT HAS been said that World War One marked a milestone in the cosmetic industry and perfumes. It might be said also of beverages and soaps. Prior to 1914, a "painted lady" on the street created a mild sensation. World War One did away with many old-fashioned traditions—as also did the prohibition amendment. Night clubs flourished. Night life thrived. Cosmetics and perfumes soared. In Paris during the war the sale of perfumes doubled!

And following World War One in the numerous industrial divisions making use of essential oils, there ensued an era of broad and comprehensive development. The industry went to town.

Previous to the outbreak of World War II in 1939, the American perfume, cosmetic, soap, pharmaceutical, food, beverage and confectionery industries had reached a state of development, commensurate with our advanced chemistry and technique. It had become the sum total of luxury and refinement, the like of which we may not enjoy again for many years to come. In the near future, we shall perhaps look back to those happy years with envious nostalgia, reminiscing the days when the industries' greatest worry consisted in planning a new sales and advertising campaign, in designing new containers, bottles and packages pleasing to the eyes of a super-sophisticated and highly critical public. The realm of expansion was unlimited, so it seemed, as long as the imagination of the promoter, artist and technician could conjure up something novel which might attract the attention of skeptical consumers. It was almost like in the days of Petronius, when Trimalchio, host of fabulous wealth, racked his brain trying to draw a smile of surprise from the tired faces of his dinner guests.

And so it was with our industry before the outbreak of the war. Drugs, spices, condiments and essential oils, in unlimited quantities, reached the United States on fast steamers, from all parts of the globe. The production of these materials had shifted to countries favored by low cost of production; keen competition brought about favorable prices, experts had traveled to the far corners of the world in search of aromatic plants of novel scent and flavor. The old established natural flower oil industry of Grasse, in Southern France, had vastly improved its equipment and processes.

Rose oil from the Valley of the Roses in Bulgaria, juniper from the sunny hillsides of Tuscany, sage from the barren Dalmatian Islands, labdanum from the fragrant coast of Corsica, vetiver root from the windswept heights of Reunion, thyme and organum from sun-parched Morocco, rosemary from old Andalusia, jasmine and neroli from the glamorous Cote d'azur, pine from the fragrant forests of Tyrol, caraway from the damp lowlands of Holland, nutmegs and mace from the warm Moluccas, sandal from Mysore, patchouly from the jungles of Sumatra, citrus oils from Sicily, the West Indies and Mexico, civet from Ethiopia, musk from China's interior, spices, aromatic plants and essential oils from everywhere—all these raw materials gave the perfume, soap, food and beverage manufacturer such a wide choice of tools that he was able to build up the most intricate formulas, satisfying even the most sophisticated taste.

USED IN THOUSANDS OF FORMULAS

It is not generally appreciated that the list of basic essential oils in general use embraces about 120 items—probably more—exclusive of balsams,

and to this may be added many floral concretes and absolutes, possibly 25 to 30 additional items, all of which have their distinct and important uses in the composition of formulas for all products which are evaluated for their flavor or odor.

These formulas are legion in number, distinctive and individual in composition and complicated in structure. According to the spread and breadth of uses and industries served, a single house in the New York market may have in its files from 2,000 to 20,000 formulas. Each formula may have from half a dozen to 30 ingredients, or more.

Raw materials used in the manufacture of soaps, pharmaceuticals, cosmetics, etc. demand the use of essential oils or compounds to mask, cover or neutralize the odors of the product. Again to render them pleasing, attractive and intriguing in scent, fragrance and freshness, perfume compounds are necessary. The products must be appealing, salable and marketable.

Here the perfumer's creative art comes into its own. Herein the individuality of a product is born and the success or failure of the product thereby written. In all this intricate and original work, always changing with the advent of new materials and constantly subject to style fancy, the 150 oils and an even larger number of aromatics are used, blended and compounded, in what, to a layman is a bewildering confusion. But to the perfumer, the dealer and the trader it is *life*.

In flavors, for foods or vegetables the conditions are similar. And so the perfume and flavor chemist works, always striving for perfection, for novel tonalities, but never aware of the danger that the whole intricate system of raw material supplies might some day be blown over like a house of cards.

IMPORTANT DEVELOPMENT OF SYNTHETICS

Hand in hand with the ever increasing production of essential oils all over the world, went the development of synthetics, or as they should really be named, aromatic isolates. The actual synthetics as made by chemical synthesis from coal tar derivatives, are only few, most so-called synthetics being isolated from lower priced essential oils. The early fear that synthetics might some day compete with, or even partly replace, the essential oils, has long since been dispelled. Both products go hand in hand, supplementing one another, reinforcing a scent or flavor where strength is lacking, or mellowing a compound where harsher synthetic notes are too predominant. Indeed, the development of new synthetics in the laboratories of Europe and the United States had made great strides, furthered during the last years by the remarkable findings of scientists like Ruzicka.

Such was the condition of our industry at the outbreak of the war in Europe. When, in September 1939, Hitler hit Poland, many an unexpected "hit" was scored on our imports of aromatic plants, drugs, spices and essential oils. In fact, our whole intricate system of supplies was shaken to its very foundation. Many an old-time importer expected to profit from his experience during the first world



Fields of flowers in France supplied America's floral oils

war, but never, never did anyone anticipate even part of the colossal difficulties to come. Conditions soon became much worse than they were from 1914 to 1918.

BUYERS RUSH TO COVER REQUIREMENTS

The first immediate effect of the war declaration in Europe upon the American essential oil industry was a rush on the part of the manufacturers to cover their requirements for many months, and in numerous cases for years ahead. Prices started to skyrocket, simply because of an artificially created demand. The essential oil dealers were much concerned about this condition because it was unsound and, at the time unwarranted. Their well meant advices toward caution, however, were strewn to the wind.

Strangely enough, "gone with the wind" was also the sharp price buying—the haggling for a few pennies per pound of oil. Essential oil sellers had become accustomed, in pre-war days, to losing an order because of a price differential of a fraction of a cent. In those happy years the buyers loved to offer the explanation that their finished goods simply could not stand the slightest increase in the price of raw materials.

All this seemed to have been forgotten in the panicky days of early winter 1939-1940. Actually, the "phoney" war of that period had deprived the American market of only a few oils and synthetics, viz., those imported from Germany and Austria, Tyrolean pine needle oils for instance, and even those were partly available from Yugoslavia or Italy, which countries at that time were still neutral. Yet, lavender oil from Southern France, and bergamot from Sicily fetched ever higher prices, only partly warranted by a possible shortage of labor during the next harvest.

But we had witnessed very little as yet. Much more was to come compared to which essential oils as an industry from September 1939 to March 1940 was like the proverbial bed of roses.

(Continued in June issue.)

Short Adages

by R. O'MATTICK

DR. ROWMATERIAL returned to his laboratory after lunch, with an armful of books. Waiting for him, to get news of latest events in the world of perfumes and cosmetics, I asked, "Is that a collection of treatises on alcohol substitutes?"

"Nothing of that sort—early Americana I picked up at a second-hand bookshop in old Cooper Square. Let me read you a passage to see if you know what it is:

'Houses and rooms are full of perfumes,

The shelves are crowded with perfumes,

I breathe the fragrance myself and know it and like it.

The distillation would intoxicate me also

But I shall not let it."

"Can't hazard a guess—sounds too poetical for an ad, even for the early sixties."

"You aren't far from wrong about the early sixties. It's from Walt Whitman's *Leaves of Grass*—from the poem called *Song of Myself*, which begins: I celebrate myself and sing of myself."

Then the good Doctor pulled out another book and read:

'Now this ambergris is a very curious substance. Though the word ambergris is but the French compound for grey amber, yet the two substances are quite distinct. For amber, though at times found on the seacoast, is also dug up in some far inland soils, whereas ambergris is never found except upon the sea. Ambergris is soft, waxy, and so highly fragrant and spicy, that it is largely used in perfumery, in pastiles, precious candles, hair-powders, and pomatum. Some wine-merchants drop a few grains into claret to flavor it. Who would think, then, that such fine ladies and gentlemen should regale themselves with an essence found in the inglorious bowels of a sick whale! Yet so it is.'

"That sounds like an old book on perfumery," I ventured.

"Wrong again—a passage from that great American epic, *'Moby Dick'* by Herman Melville," said Dr. Rowmaterial. "And now I must go back to work on alcohol substitutes, and shall read you other parts of other books some other time."

* * *

An old trick of perfume oil salesmen who don't want to admit that they are baffled, whenever they are baffled, is to

conjure some strange name if you ask them to identify the key ingredient in some compound. We showed Pat Chouli an exotic perfume base the other day, and with a knowing sniff he said, 'Zingiberene.' We didn't know what that was but we take everything Pat says with a grain of sodium chloride. Later, we looked it up and found that Zingiberene is nothing more than the main constituent of ginger. Imagine calling gingersnaps, Zingiberene-snaps, or Ginger Rogers, Zingiberene Rogers!

* * *

In the reception room of a dentist's office, waiting for him to get at us with oil of cloves, pliers, hammers, eugenol, and other dentools and dentoils, we picked up the March issue of a magazine called *Gourmet* and bit our teeth into a column therein called *Truffles and Trifles*, by Gates Hebbard. Ah, fellow-sufferer—we mused. Another poor being, who writes a column for a magazine—wonder if he, too, has a toothache and a bad molar?

* * *

Our eyes ran across this from the column, which we jotted down, as is our wont when we run across something akin to the business of perfumes and essential oils:

"Herb Lore—want to call forth an army of demons? Tab coriander, liquid of black poppy, fennel and sandalwood in a heap and set a match to them. A book called *'The Magic of Herbs'* claims that is a sure way of invoking evil spirits. Want to marry the first man you meet, to-morrow, Miss? Put a sprig of sandalwood under your pillow to-night. It's an old-time superstition but what can you lose? Since all we want to do at the moment is to stir up remembrance, we're wearing a gar-

land of rosemary and we couldn't look sillier."

* * *

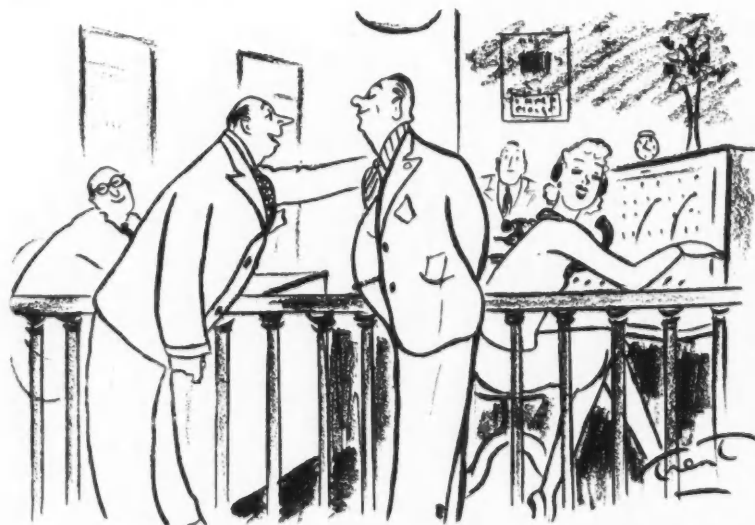
Well, now, Herb! But remembrance—ah, remembrances of things past! Do you remember when you could get all the perfume materials, alcohol, bottles, caps, lipstick cases, waxes and had only to find customers. Then came the customers and you began turning them down because of lack of perfume materials. Then came the substitutes and out went 50 per cent of the alcohol. Then came the alcohol stretchers and you couldn't get packages. . . . Then came the dawn and you woke up and realized it was all a dream and a nightmare but just like the real thing down at your office!

* * *

Tab coriander, liquid of black poppy, etc., etc., in a heap and set a match to them. Maybe that *will* invoke the evil spirits. If you could invoke them—choke them—put them in a flask and distill them—maybe you'll end with cologne spirits and add to your supply of alcohol. That would be something. But, where, asks Otto Stock, are you going to get the coriander, fennel, etc., etc., to set a match to.

* * *

Well—here is the Convention and here are we. That's Dr. Rowmaterial over there—the one with the scotch and soda. You think you see five fellows over there, all drinking scotch and sodas? Well, how many did you have? Pat Chouli, A. Goodbye and Otto Stock don't drink scotch and soda—just scotch. And Sand L. Wood is not drinking at all *now*. He's trying to recall whether an essential oil salesman told him there were 11 bottles in Room 40 or 40 bottles in Room 11.



"J. W., we're counting on you to fit our youth mask into a post-war world!"

Jasmone—Constitution and History of Its Synthesis

Interesting results of research by leading scientists . . . Something yet to be done in the way of cheaply manufacturing a completely satisfactory and uniform jasmone substitute

by EVERETT L. SAUL, Ph.D.

Chief Research Chemist, Felton Chemical Co., Inc., Brooklyn, N. Y.

THERE are several species of jasmine cultivated today but the most important is undoubtedly *Jasminum grandiflorum* L. cultivated in South Europe. Although indigenous to the soils of the Himalayas in Asia, it has been grown in South France for over one hundred sixty years. In the last few years the plant has been introduced into North Africa and into Bulgaria's rose fields.

ODORIFEROUS PRINCIPLE OF JASMIN

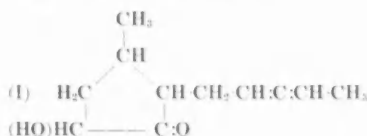
The perfume from the jasmine flower, obtained by enfleurage or by volatile solvent extraction, is one of the most celebrated and widely used. Great, therefore, was the curiosity of chemists and perfumers to learn the chemical constitution of the odoriferous principle of the fragrant flower. Investigations proved the presence of benzyl acetate, linalyl acetate, benzyl alcohol, linalool, indol, the methyl ester of anthranilic acid, p-cresol, geraniol and geranyl acetate, yet it was evident that mixtures of these chemicals did not successfully reconstruct the odor of the jasmine flower. Then in 1899, A. Hesse¹ isolated from the oil of *Jasminum grandiflorum* a substance which he called jasmone. This chemical was present to the extent of about 3 per cent, and Hesse reported that it was an unsaturated ketone having the empirical formula, $C_{11}H_{16}O$. And there the matter was dropped. The chemical constitution remained unknown and the synthesis therefore impossible so that the perfumer was precisely in the predicament he had always been.

In 1924, H. Staudinger and his assistant L. Ruzicka² published an extensive investigation of the insecticide pyrethrin. They succeeded in isolating the active principle, an ester, the alcoholic constituent of which they called pyrethrolone and which composed about 1 per cent of the insecticide



Dr. Everett Saul surrounded by his works of reference does his literary work in his study

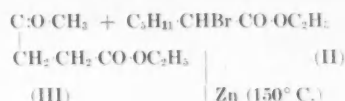
powder. This alcohol they reported to be a methyl pentadienyl cyclopentanone having the following structure (I):



They admitted, however, that the disposition of the side chain olefinic linkages was in doubt. Using the method of Paal³, they obtained a saturated ketone-alcohol $C_{11}H_{20}O_2$, or tetrahydropyrethrolone. A more complete reduction, using the procedure of Skita⁴ yielded a ketone $C_{11}H_{20}O$ which they designated as tetrahydropyrethronone.

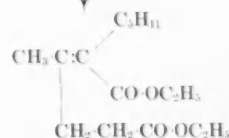
WORK OF STAUDINGER AND RUZICKA

Although Staudinger and Ruzicka never accomplished the synthesis of pyrethrolone, they did prepare a number of derivatives among which was tetrahydropyrethronone. The synthesis of this ketone is outlined briefly below. The first step was the condensation of alpha brom-hentyl ester (II) with laevulinic ester (III),



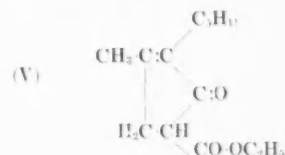
(III)

Zn (150° C.)



(IV)

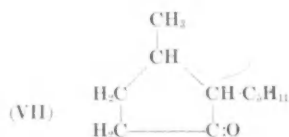
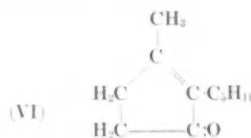
Condensation product (IV) was then cyclized to a ketone (V).



(V)

By preparing the sodium derivative of this ketone and heating it with 20 per cent sulphuric acid, a 3-methyl-2-n-amyl-Δ², 3-cyclopentenone (VI) was obtained, which on reduction yielded tetrahydropyrethronone (VII). These two ketones, only after some eight or nine years, were disclosed as

compounds closely related in structure and odor to jasmone—(VI) being di-

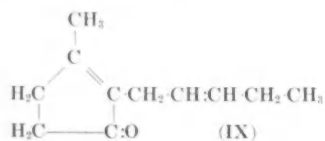


hydrojasmone and (VII) tetrahydrojasmone.

In 1926, Elze⁵ revived the jasmone riddle by claiming that the ketone was present in orange flower oil and jonquil absolute. The only experimental evidence he offered was that the isolated semicarbazone had a melting-point of 201-202° C. He postulated that the ketone possessed two olefinic linkages, one in the nucleus and one in the side chain. His assumption of the positions of the olefinic linkages chanced to be correct, but he added to the general confusion by erroneously supposing the ketone related in chemical structure to irone.

CONSTITUTION CLARIFIED

It was not until 1933, that the constitution of jasmone was finally clarified. W. Treff and H. Werner⁶, working in the laboratories of Heine & Co., prepared tetrahydro- and dihydrojasmone both of which compounds they identified with the pyrethrones already synthesized by Staudinger and Ruzicka in 1924. Treff and Werner reported that the odor of tetrahydrojasmone or tetrahydropyrene resembled that of jasmone and, contrary to the claims of Staudinger and Ruzicka, said that the odor was powerful and pleasant. It remained now to establish the location of the olefinic linkages in the side chain. Permanganate oxidation experiments led to the identification of laevulinic, propionic and acetic acids from which results Treff and Werner concluded that jasmone possessed the structural formula (IX).



3-methyl-2-(Δ 2, 3-amylen)-Δ 2, 3-cyclopentenone (jasmone)

The fact that an essential oil contained a compound having a cyclopentene nucleus was novel. No alicyclic

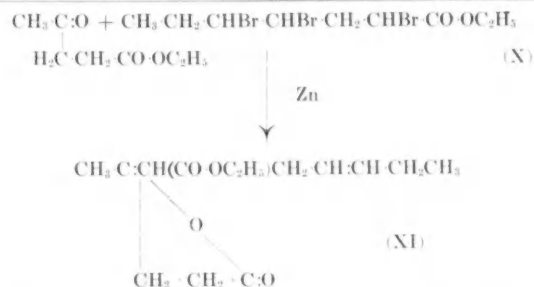
five-membered rings had hitherto been discovered in plant perfume products. The presence of the amyl group suggests a relationship of odor to the well-known alpha amyl-cinnamic aldehyde. However, this relationship of odor is somewhat far fetched, both from the olfactory and even theoretical point of view. The amyl group in amyl cinnamic aldehyde is not attached to the cyclic nucleus, nor is the carbonyl a nuclear link.

Two months after the appearance of the work of Treff and Werner, Ruzicka and Pfeiffer⁷ in conjunction with the laboratories of M. Naef & Co., described results on the constitution of jasmone almost identical with those in

and opened Sept. 16, 1933. There followed shortly, a lively series of discussions on the subject of priority in connection with the work on the constitution of jasmone. These discussions may be found in the *Perfumery & Essential Oil Record* 25, 41, 62, 113, 162, 182 (1934).

SYNTHESIS OF JASMONE PUBLISHED

Finally in 1935 Treff and Werner⁸ published the awaited synthesis of jasmone. Starting with Δ 3, 4-hexylenic alcohol they prepared the bromide, nitrile, acid, acid chloride and finally the 1, 3, 4-tribrom-heptyl ester (X). By condensing the latter with laevulinic ester they obtained a lactone (XI).



the previously published paper. Ruzicka and Pfeiffer also recognized the similarity in the chemical structures of jasmone and tetrahydropyrene. They identified as products of ozonization of jasmone, laevulinic acid, malonic acid and propionaldehyde so that they too concluded that the ketone had formula (IX).

SEALED REPORT TO M. NAEF & CO.

It appears that a sealed report of Ruzicka and Pfeiffer was deposited with M. Naef & Co. on May 12, 1927.

By treatment of the lactone (XI) with dry HCl in absolute alcohol at 0° C., then preparing the sodium derivative which was heated with 20 per cent sulphuric acid, they obtained the desired jasmone. Treff and Werner acknowledged the invaluable assistance derived from the work which had previously been done by Staudinger and Ruzicka in 1924.

Of course the preparation of the cyclopentane ring was not new, and even the simplest ketone, cyclopentanone formed by heating the barium salt of

Table I—A comparison of the physical constants of jasmone and its derivatives as determined by Treff and Werner and Ruzicka and Pfeiffer

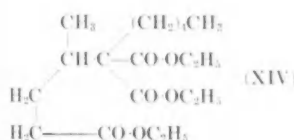
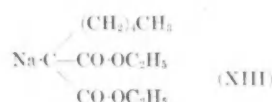
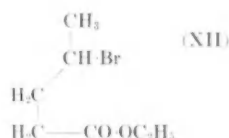
Jasmone		
	T&W	R&P
Boiling-point	108-110/5-6 mm.	134-135/12 mm.
Density	0.9467 (15°C.)	0.9437 (22°)
Refractive Index		1.4979 (22°;D)
M.P. semicarbazone	204-206° C.	209.5-210° C.
Optical Rotation	0°	0°
Dihydrojasmone		
	T&W	R&P
Boiling-point	101-102/5 mm.	120/12 mm.
Density	0.9201 (15°C.)	
Refractive Index	1.48107 (15°;D)	
M.P. semicarbazone	175-176° C.	175-176° C.
Tetrahydrojasmone		
	T&W	R&P
Boiling-point	91/7 mm.	
Density	0.8850 (15°C.)	
Refractive Index	1.44877 (15°;D)	
M.P. semicarbazone	165-166° C.	156-157° C.
	191-192° C.	
	(cis & trans isomers)	

adipic acid, is reported to have a peppermint-like odor, while 3-methyl cyclopentanone resembles camphorophorone in odor. W. Noyes⁸ prepared substituted cyclopentanones and G. Vavon¹⁰ prepared derivatives of cyclopentanone as intermediates in the synthesis of cyclopentanol while studying steric hindrance.

One of the most important results of the determination of the structural formula of jasmone was undoubtedly the impetus given to the preparation of homologues and isomers which could be more easily and cheaply produced.

TETRAHYDROJASMONE

H. Werner¹¹ described an interesting and comparatively simple synthesis for tetrahydrojasmone. He first condenses gamma brom-n-valeric acid ethyl ester (XII) with the mono sodium derivative of n-amyl diethyl malonate (XIII) and obtains a tricarboxylic acid ester (XIV).



From (XIV) the free acid (XV) is liberated with the loss of carbon dioxide, the barium salt (XVI) is formed and subjected to dry distillation at reduced pressure, giving tetrahydrojasmone (XVII).

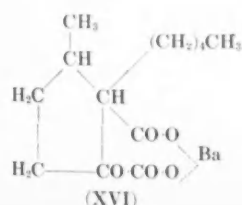
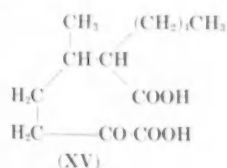
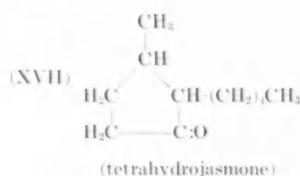


Table II—Homologues of jasmone and their physical properties

Side chain occupying position 2—	d (15, 15)	B.P.	M.P. semi-carbazone
1/n-penten-4-yl	0.9420	102-104, 5 mm.	164-165° C.
2/n-penten-3-yl	0.9425	109-111, 7 mm.	168-169° C.
3/n-hexen-3-yl	0.9320	116-118, 6 mm.	158-159° C.
4/n-hexen-2-yl	0.9322	116-117, 6 mm.	193-194° C.
5/n-buten-2-yl	0.9566	114-116, 10 mm.	213-214° C.



The laboratories of Heine & Co. prepared a number of homologues of jasmone among which the most important are shown in Table II.

Werner says that No. 4 closely resembles jasmone in odor, although it has not the same intensity in spite of the fact that the olefinic linkage occupies the correct position in the side chain. The first three homologues mentioned above are more flowery even though the olefinic linkage is further removed from the nucleus. It appears that No. 5 is somewhat harsh and is applicable only to special types of perfumes. Werner claims that when the five-membered ring is saturated, one of the most interesting derivatives is 2-n-hexylidene cyclopentanone. In general it may be stated that the straight chain derivatives are more pleasant in odor than those having branched chains, and the higher homologues are more flowery, while the lower ones possess a more spicy and fruity note. Heine & Co. offered the trade dihydrojasmone, a substitute for jasmone which is unquestionably the most superior.

Albert Verley¹² in 1935 wrote an announcement in which he reported that his firm offered for sale a chemical homologue of jasmone which he called Jasmonarome. While extolling the product, he does not give any hint as to its structure, preparation or properties.

In 1936, W. Issaquian¹³ published an article on the synthesis of jasmone-like compounds. He concerned himself with the completely saturated series of jasmone substitutes and after a careful study of preparative methods reported a synthesis of 3-methyl-2-isoamyl-cyclopentanone in which greatly improved yields were possible. Following the work of Treff and Werner (vide supra), he effected the condensation of isoamyl malonic ester and gamma brom valeric ester in absolute ether using finely divided sodium. Against a previously reported 18 per cent yield, he obtained 44 per cent of theory of the triethyl ester of methyl isoamyl butantricar-

boxylic acid. Dry distillation of the barium salt of the free dicarboxylic acid gave 42 per cent of 3-methyl-2-isoamyl-cyclopentanone, which had the following properties: b.p. 98-99° C. at 8 mm.; d (20°) 0.8938; n (20°) D 1.4537; m.p. semicarbazone 156-157° C.

ISOAMYL DERIVATIVE EXCELLENT

Issaquian¹³ observes that the tetrahydroisobutyl product is uninteresting but that the isoamyl derivative is excellent and stronger in odor than the corresponding n-amyl derivative.

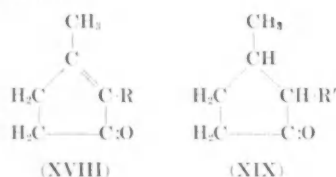
Plattner and St. Pfau¹⁴ studied the conversion of unsaturated aliphatic acids to cyclopentenones. They claimed that the first part of their paper was a sealed communication dated Aug. 15, 1933. According to their work, the conversion of alpha, beta-unsaturated acids to lactones does not proceed readily. Attempts to force this reaction led to the formation of alpha-substituted cyclopentenones, and to resinification. Ketone formation was not limited to alpha, beta-unsaturated acids, but was extended to acids in which the ethylenic linkage was as far removed as in iota, kappa-undecylenic acid. Dihydrojasmone could be prepared by this method starting with gamma methyl decylenic acid. When sulphuric acid was used to effect this reaction the yield of ketones was less than 1 per cent. Heating undecylenic acid with beta naphthalene sulphonic acid gave yields of 5-10 per cent ketone, and caused resinification of 50 per cent of the acid. By passing the acid over silica gel the direct yield of ketone was 20 per cent, and 50-60 per cent of the acid might be recovered and recirculated, resulting in 40-50 per cent conversion to ketone. Undecylenic acid passed through a Pyrex tube at 350° C. at a rate of 50 grams per hour, gave about 12 per cent yield of 2-hexyl-2-cyclopenten-1-one, whose semicarbazone melted at 196° C. There was also some 2-hexyl-4-cyclopenten-1-one formed during the reaction.

S. Isikawa, T. Sakurai and R. Someno¹⁵ found that using gamma-undecalactone and undecylenic acid, the best method for obtaining 2-hexyl-2-cyclopenten-1-one consisted in heating them with 98 per cent phosphoric acid at reduced pressure for 10 to 15 minutes. Applying the same procedure to beta hydroxy-pelargonic and alpha-nonylenic

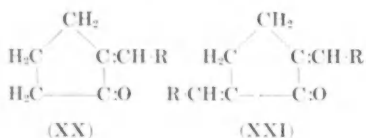
acids yielded 2-butyl-2-cyclopenten-1-one.

Soon after the constitution and synthesis of jasmone was established, a number of patents appeared in which were described the commercial preparation of many substituted cyclopentyl and cyclohexyl compounds which were claimed to resemble true jasmone in odor character. The latter was obviously too expensive to prepare, and simpler methods were sought to synthesize related products.

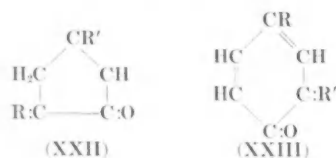
In 1933, Heine & Co.¹⁶ patented perfumes or mixtures of perfumes consisting of derivatives of 3-methyl-cyclopentenone or 3-methyl-cyclopentanone having the following formulae (XVIII) & (XIX):



in which R or R' were aliphatic saturated or unsaturated side chains. These aliphatic groups might be either straight or branched chains. In June of 1934, the firm of A. Maschmeijer Jr.¹⁷ patented the preparation of alkyl derivatives of cyclopentenone by treating alkyl butyrolactones with concentrated acids; the preparation of dihydrojasmone from undecalactone; and the use of dihydroisojasmone and its homologues in perfumes. In July, 1936, L. Givaudan & Co. of Geneva¹⁸ patented the synthesis of the condensation products between aliphatic aldehydes and cyclopentanone. The condensations were brought about at low temperatures by means of aqueous caustic solutions and the resulting products had the formulae, (XX) & (XXI).



In August of 1936, Heine & Co.¹⁹ again was granted a patent for the preparation of the condensation products between penta—or hexacyclic ke-



tones, saturated or unsaturated in the nucleus, and which contained at least one methylene group adjacent to the

carbonyl group, with aliphatic aldehydes. These compounds may be represented in part by the structural formulae, (XXII) & (XXIII).

In November, 1936, L. Givaudan & Co.²⁰ patented the production of dihydrojasmone and its homologues by vapor phase dehydration of gamma methyl decylenic acid or its lactone over catalysts such as activated silica at about 300° C. In March, 1938, Heine & Co.²¹ was granted an addition to its original patent, in which four new derivatives of cyclopentenone were described. In October, 1938, the firm of A. Maschmeijer Jr.²² patented an improvement on their previous method of converting butyrolactones to alkyl cyclopentenones. In 1939, the I. G. Farbenindustrie Aktiengesellschaft²³ patented the preparation of p-alkyl cyclohexanones by the reduction of the corresponding phenols and subsequent oxidation of the alcohols to the ketones. In 1940, Schimmel & Co.²⁴ patented the method of producing alkyl cyclopentenones by treating alkyl butyrolactones or the corresponding unsaturated acids with concentrated phosphoric acid at 130° C.

NEED CHEAPER SUBSTITUTE

In the body of these patents a great many chemicals, similar in structure and odor to the natural jasmone, are described. Their physical and chemical properties are often disclosed and in general offer an interesting field of study. In many cases, the yields of these jasmone-like products are small, and the purification a matter of grave difficulty. Nevertheless, a small number of such compounds are commercially marketed to the perfume trade, usually at a very high price. Some of these latter chemicals are interesting in odor—others are not. Some are intense odors, flowery and fruity, and lend themselves well to many perfume compositions where a jasmone note is desired. There still remains, however, something to be done in the way of cheaply manufacturing a completely satisfactory and uniform jasmone substitute.

It may be a matter of interest to note that in 1936 La Forge and Haller²⁵ published an article on the structure of pyrethrolone. On the basis of their results, they propose a revision of the original Staudinger-Ruzicka pyrethrolone formula, by placing an additional olefinic link within the cyclopentane nucleus in the 2, 3-position and by changing the cumulated olefinic system in the side chain to a system of conjugated olefinic linkages. La Forge and Haller maintain that tetrahydropyrethrolone may be converted to a chlor derivative which on reduction yields di-

hydrojasmone of the established structure. They later obtained a patent²⁶ for the preparation of dihydrojasmone by catalytic reduction of pyrethrolone.

The AMERICAN PERFUMER²⁷ in June, 1935, contained an excellent article on the "Structure and Synthesis of Jasmone" by Dr. Walter Treff. Other reviews may be found in the *Seifensieder Ztg.*,²⁸ the *Deutsche Parfumerie Ztg.*,²⁹ and the *Revue des Marques de la Parfumerie et de la Savonnerie*.³⁰

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Aviators Use Wintergreen

Army aviators who must fly to great heights up to altitudes of 35,000 feet are prepared for safe sky work at such altitudes by applying oil of wintergreen to the edges of their masks. If the aviator can smell wintergreen, it means that his oxygen mask is leaking and must be adjusted. This technique was perfected in the altitude chamber at Mitchel field.

pH Standards

The National Bureau of Standards has recommended 17 standard solutions for pH testing, covering a wide range of acidities. These standards are enumerated and described in the Bureau's *Journal of Research*. They are intended for precision work in laboratory reactions and industrial processes. Directions are given for the preparation of the solutions and the pH values at 20°, 25° and 30° are listed. Food and beverage chemists will be interested in these recommendations by the Bureau—*Food Materials*.

The American Perfumer

The Odor of an Enemy, the Cat, Frightens Mice Away

If a ferret runs through a building even though a single mouse is not caught the structure will be rid of mice . . . Use of animal odors in insecticides and exterminators to make them more efficient

by CHARLES V. SPARHAWK

THERE are two distinct kinds of insecticides and exterminators for pest control. Each is employed for a different purpose. One kind is to repel; the other is exclusively to kill.

TWO KINDS OF INSECTICIDES

1. To repel. These are intended for keeping away destructive agents, insect or animal. Borax, powdered glass, smoke fumes and other similar materials are often used; and are employed where a large area makes it difficult to reach individual infestation. With these could be grouped the gases and poisonous sprays that are spread on farm lands and through entire buildings.

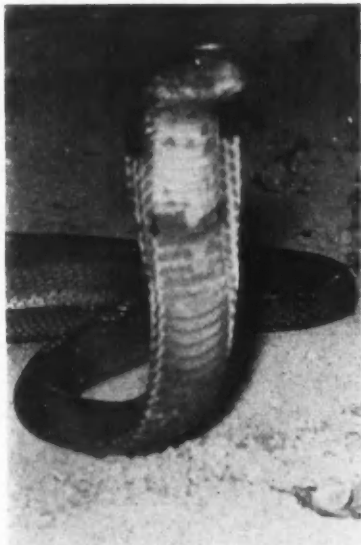
2. To kill. In order to make these more effective certain food baits are used to attract the vermin, or else they are mixed with the actual material the intruders naturally destroy. Storage houses with wheat, corn and oats lend themselves especially to this kind of treatment.

OFFENSIVE ODORS

A current insecticide advertisement reads: "There's a reason why the housewife will prefer one insecticide to another. Both kill effectively, yet one is more pleasant to use, nicer in the home. This is the job that proper, scientific perfuming can do." Herein crops up the matter of merchandising and sales appeal. While the housewife may not demand a pleasant smell, she often does require absence of kerosene and offensive odors. Even naphthalene and camphor are nauseous to many.

But the important considerations are: "Do their odors repel?" or "Do they supply the instrument that kills?" So long as the other points do not interfere with their efficient performance, they are secondary.

There are many stages in protecting food and clothing from the ravages of pests. The articles may be in storage, in transit, in processing plants, in homes, restaurants and army camps. And in dairy and other stables there



The deadly cobra's chief enemy is the mongoose which destroys the snake with its superior speed and its quickness of attack

are ticks, fleas and lice that attack sheep, hogs and other farm livestock, taking a terrific toll. The perfume in these items is not the vital factor; their efficiency is. It is here that the element of scent comes in.

SENSE OF SMELL NOT FULLY USED

How keen is your sense of smell? Can you smell fog, its salt, thick odor as it rolls in from the sea? Have you experienced the "burning taste" of fresh snow, catching the throat and nostrils with a smarting sense as though breathing menthol? Or the smell of burning grass as our neighbors burned off their field to prepare a pasture for next season—those light, swift fires that give your tongue an earthy flavor?

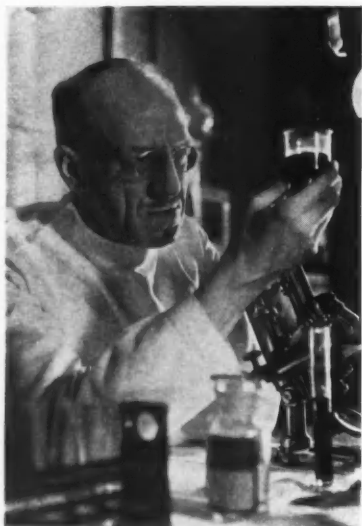
In William Beebe's "Jungle Peace" is this: "The most tantalizing odors were the wonderfully delicate and penetrating ones from some great burst of blossoms, odors heavy with sweetness,

which seeped down from vine or tree high overhead, wholly invisible from below even in broad daylight. These odors remained longest in memory, perhaps because they were so completely the product of a single sense. There were others, too, which were unforgettable, because like the voice of the frog, they stirred the memory a fraction before they excited curiosity. Such was found the powerful musk from the bed of leaves which a fawn had just left. For some reason this brought vividly to mind the fearful compound of smells arising from the decks of Chinese junks. Along the moonlight trail there came wavering whiffs of orchids, ranging from attar of roses and carnations to the pungence of carrion, the latter doubtless distilled from as delicate and beautiful blossoms as the former. There were besides the myriad and bewildering smells of sap, crushed leaves and decaying wood; acrid, sweet, spicy and suffocating. Some like musty books, others recalling the paint on the Noah's Ark of one's nursery."

Also Mr. Beebe's "Jungle Peace" brings to our minds the bewildering variety of odors, making one understand and envy more and more the dog's sensitive nostrils. "Long after a crab-jackal had passed, we noted the stinging, bitter taint in the air; and now and then the pungent wake of some big jungle-bug struck us like a tangible barrier." Little do we depend on our sense of smell as animals do. Perhaps city dwellers learn to subdue the sense of smell for their self protection.

RODENTS DETECT ENEMIES BY ODOR

All know the effect of a cat in the house. Rats and mice instinctively avoid such an abode. Still the cat has no odor itself that the owner can distinguish. But it would be useless to deny that rodents and other small destructive pests detect such odors. If a ferret is allowed to run through a building it will keep away all trace of



The trained eye of the biologist, the chemical explorer who "brings 'em back alive," looks at life, the basis of animal fixatives

annoying visitors according to experienced exterminators. Although the ferret may not catch a single victim, the scent of the animal remains. That is enough to make rats and mice flee.

UTILIZING ODORS OF ENEMIES

The skunk is particularly noted for its value in such cases. The skunk does not belong to the cat family but to the weasel family. The weasel and the rat are natural enemies. It is a known fact that a rat that will fight a man or dog when cornered will not put up resistance when placed before a skunk. The weaving motions and quick striking powers of the skunk seem to paralyze all defense. Once their teeth catch hold, the results are quick. The writer happened to notice an encounter between a rat and skunk. With one motion the head of the rat was severed from the shoulders as though cut by a knife. The whole action was only a matter of seconds. One may have noticed if a skunk gets loose in a chicken house that one usually finds the heads separate from the dead hens.

GLANDULAR EXTRACTION

One might imagine however that a skunk in the house might not prove to be a satisfactory companion. The care and feeding of such an animal also might not be convenient. But if the glandular extraction of the skunk were to be incorporated into commercial repellents, it would doubtless add immeasurably to the potency and efficacy of the exterminating material.

In the same manner the inclusion of a small quantity of muskrat bait in the form of a gland would become a powerful attraction to any creature that feeds

on meat. In the insect category could be included mosquitoes, flies, fleas, ticks, lice and other pests that are attracted to warm-blooded animals. The power of musk to distribute itself in atmosphere is well known. A minute amount would be sufficient to attract almost any animal, because the muskrat is not a hunter, or carnivore, but is itself game for other denizens of the woods. For instance as bait for a rat, mouse or any rodent that devours flesh, if the extract were incorporated in the exterminator, victims would be attracted from long distances.

What advantage would animal baits and repellents have over essential oils and ingredients like sugar? There are oils such as anise and geraniol that have proved attractive to animals as well as to insects and there is oil of citronella, a valuable repellent to many flying pests.

ANIMAL BAITS MORE PENETRATING

Such oils are vegetable and volatile. So they naturally are absorbed by vegetable, wood and earth surfaces. They also rapidly dissipate in air. What is more, it is doubtful if a bait compounded solely of vegetable matter could be distinguished outside a circumference of 50 to 100 feet. Animal baits have no such limitations, as may be illustrated by a dog when in heat. As quoted by a well known explorer, a district where hyenas were plentiful was distinguishable at a distance of twenty miles. And this, let it be remembered, was a human nose.

Abrasion Preparations

From England comes the following new glycerine-iodine preparation for abrasions which has been used by Dr.



Crucibles of the modern alchemist—in the laboratory such media as these convert living organisms to the perfume industry's use

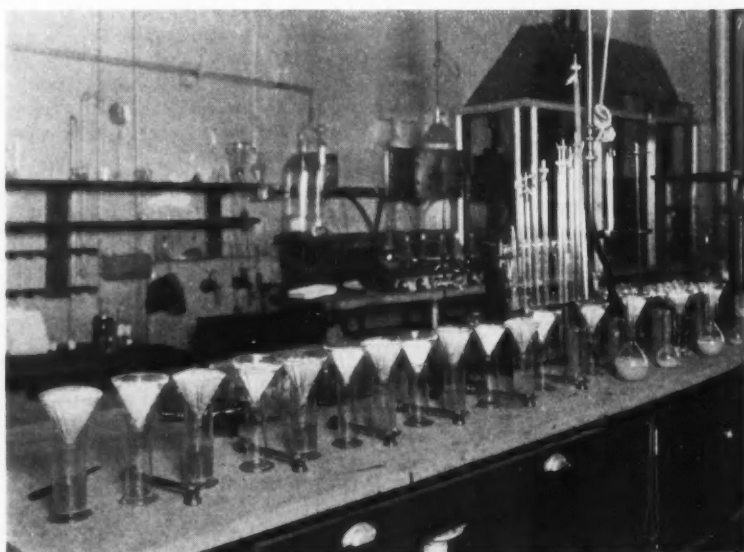
J. R. Lee (Brit. Med. J. 1:721, 1941) in the treatment of air-raid casualties:

Potassium iodide . . . 640 grains
Iodine . . . 200 grains
Distilled water . . . 1 fl. oz.
Glycerine, to . . . 20 fl. oz.

Grind the potassium iodide to a fine powder, add the iodine, mix, add the water and make up to volume with glycerine.

This solution may be used full strength or half strength. In the latter case, it is diluted with glycerine, never with water.

The preparation is used to paint on abrasions. It may also be used to pour into wounds instead of sulfanilamide, or to swab out wounds which cannot be excised.



Caged in glass is this chemical menagerie of animal scents, fox, wolf, snake, weasel, skunk

Packages Serve on Fighting Fronts Abroad and at Home

Metal, glass, plastics march in the war effort, leaving little for cosmetic field, as revealed at wartime packaging exposition, sponsored by American Management Assn.

. . . Paper is popular substitute for critical materials in cosmetic packages

THOMAS PAINE'S ghost walks again—up and down the highways and byways of the world—and recently he strode the aisles of the wartime packaging exposition at the Astor Hotel, New York City. Elbowing his way out of the show, past the registration desk, he paused to repeat his famous "These are the times that try men's souls." The words swept on from visitor to visitor, gathering momentum as they were joined by others . . . priorities, manpower, raw materials, shortages, restrictions, unfilled orders, transportation, WAR . . . until they surged over Mr. Cosmetic Manufacturer who gasped for breath as he fought the current and sought a quiet eddy.

And he found one quickly. F. N. Burt Co. gave him a breather in his fight for survival because there were answers to some of his packaging problems . . . paper lipsticks, some with ends of vegetable ivory which aids in durability and is still unrationed, a paper and plastic compact, paper closures with two types of thread, and an array of paper containers for a variety of products, talcum, mascara, baby powder, face powder, tooth powder, etc.

PAPER TO THE FORE

The display of paper lipsticks manufactured by F. N. Burt Co. is almost a who's who of the cosmetic industry—Arden, Avon, Coty, Denney, Elmo, Primrose House, Tangee, Quinlan, Louis Philippe, Herb Farm, Yardley. Avon uses the combination plastic and paper compact and Mollé thus far is the only cream utilizing the paper top. Among the sifter top paper cans, one of the most interesting is Yardley's which has a side instead of a top dispenser, this arrangement being an exclusive Yardley creation by its own designer. F. N. Burt Co. has its problems, too, chief of them being the difficulty of getting into greater production. There's also plenty of war work at the company's plants.

Having gained some strength at the

Burt exhibit, Mr. Cosmetic Manufacturer struck out into the stream again. Reynolds Metals Co., largest producer of aluminum foil, offers armor-clad protection for wartime needs—but not for cosmetics—in its new packaging material of metal foil, laminated with cellophane and dense kraft. It's armor-clad protection against moisture, vapor, air, water, insect infestation, light and foreign odors, and it serves as packaging for sulfadiazine tablets, dehydrated foods, concentrated cereals, army "k" ration, bandages, film, ammunition, radio parts, emergency rations, matches, Bibles for lifeboats, etc.

So, on went Mr. Cosmetic Manufacturer, with a pause at the George V. Clark Co.'s headquarters. There, too, were paper containers in several sizes which might be used for bath powder, face powder, etc. Acetate and metal containers for cosmetics of course are out for the duration of the war but there's some production available in the paper ones.

PAPER SAVES CRITICAL MATERIALS

Going forward again with the swiftly moving tide, Mr. Cosmetic Manufacturer was swept into the exhibit of the Folding Paper Box Assn. of America. "Folding Paper Boxes Go to War." Folding paper boxes used to package war goods and essential civilian products register high savings in materials: 215,000,000 pounds of critical metals, 8,000,000 board feet of lumber, 1,900,000 pounds of metal from obsolete printing plates, 750,000 pounds of glass, 220,000 pounds of cellophane, 36,000 pounds of pliofilm, 12,000 pounds of rubber. There are paper containers for spices, hair dressing, talc, tooth powder, a box for frozen eggs, even a poultry feeder of paper. Mavis' new paper holder for talcum with its slide top stirred the interest of Mr. Manufacturer before he swung out into the current again.

Consolidated Packaging Machinery Corp., like all equipment manufacturers, warned him of the care he should give his present machinery so it will

last for the duration of restrictions.

Du Pont's cellophane division, emphasizing again there was "nothing for cosmetics," pointed out cellophane's use in war: on rations, lend-lease, bulk army-navy shipping, in aircraft factories, ordnance wrapping, tank, truck and repair parts; on the civilian front, cellulose alone or in combination with fiber-board replaces tin cans for foods. Vegetable shortening, syrup, baking powder, coffee, cereals, dehydrated soups, cheese, frozen eggs are some of the food products using this cellulose film in packaging.

GAILY COLORED FOOD PACKAGES

Shoving forward, Mr. Cosmetic Manufacturer hoped for a life raft from Milprint, Inc., and Riegel Paper Corp. but in each instance the chief attention focused on protective packaging of foods on both the home and war fronts. At Milprint, colorful pictures on packages in place of cellophane for attracting interest to foods, specially coated cellulose seals for the top of ice cream, and at Riegel triple-laminated papers for hygroscopic foods gave him courage to look ahead to postwar planning once he's passed the shoals still ahead in the seas of war. Riegel furnished a diversion from the swift current and pressing fight for life by contributing advice on growing a victory garden through its booklet, "ABC of Victory Gardens." Designated a guide to growing vegetables, the booklet reminds its readers that food must be processed and preserved and that Riegel has more than 200 papers for protective packaging of food.

Owens-Illinois Glass Co. said "Nothing new for cosmetic containers," and reported it was having the same difficulty as other manufacturers, keeping up with production demands.

ALUMINUM IN POSTWAR

Alcoa (Aluminum Co. of America) pointed to postwar uses of aluminum, barrels, drums, tubes, foil, closures, stating that there will be seven times as much aluminum available for Vic-

tory as in 1939. All production now is entirely on government sanction.

At Armstrong Cork Co. Mr. Cosmetic Manufacturer found a number of cosmetic packages on display—nothing new but it was good to see the well known containers, especially their gay colored molded closures, still being produced although raw materials are on a month to month authorization by the government.

PAPER CAPS FOR OPAL JARS

Then Mr. Manufacturer anchored momentarily at Anchor Hocking Glass Corp. and there found a life line—for in production for the cosmetic industry are opal jars using a paper cap similar to that for milk with an over-all paper top which will serve as the cover when the package is once opened by the consumer. Of course the exciting new product shown by this firm is the all-glass bottle vacuum sealed, which has a rubber substitute ring, designed for medicines, foods, etc.

And then the tide of war really engulfed Mr. Cosmetic Manufacturer as he went from exhibit to exhibit, seeking aid for his problems. Kimberly Clark Corp. described packing of war products with its Kimpak creped wadding. J. L. Ferguson Co. showed some of the small parts it is manufacturing for the navy. Union Bag Co. said no talk yet about putting cosmetics in paper bags but it is busy supplying bags for food products as well as its large shipping containers.

PLACE POSTWAR ORDERS NOW

Pneumatic Scale advised Mr. Cosmetic Manufacturer to place his order now for postwar delivery since equipment must continue to be on priority after victory because there is such a large volume of orders already on hand for after-the-war delivery. Packaging Machinery Co. is 100 per cent engaged in war work.

Goodyear's plicofilm story points to postwar uses for civilians. New Jersey Machine Corp.'s Pony Labelrite labels Colgate's wartime cone package. Hinde & Dauche Paper Co. shows shipping boxes for war materials and lend-lease products. Eastman demonstrates the method of laminating identification passes between two sheets of its transparent acetate, as well as displaying war products now using acetate.

Waterproofed shipping containers floating in the small tank at the Container Corp. of America's exhibit made Mr. Cosmetic Manufacturer wish he could confine his troubles to an equally small space instead of being tossed hither and yon in the turbulent waters of today's existence, fighting always to keep his head above water.



Packages with the armed services dominated one large section of the recent packaging show

Stokes & Smith Co. said most of its equipment was going for food production but here's a hand, Mr. Cosmetic Manufacturer, repair parts are being made for your installations. Economic Machinery Co. supplied advice on how customers could keep their labeling machinery in continuous operation. Heat Seal-It's machines are producing sealed packages for either the war program or essential civilian use. Cleveland Container Corp. with its tubular packages, 1480 sizes of them, offered another haven for Mr. Cosmetic Manufacturer for there is some cosmetic production although the company keeps up its war work to qualify as an essential business. Tubular packages offer a variety of uses to the cosmetic field, containers for dusting powder, tooth powder, etc. This firm, too, has the side dispensing container. The Sealright Co. also featured paper containers, showing uses for them as well as paper closures.

Lumarith's role in wartime packaging as well as its application to military needs highlighted Celanese Celluloid Corp.'s exhibit.

CARING FOR EQUIPMENT

Better Packages, Inc., whose equipment like other manufacturers' is on a priority basis, has a four point victory program for care of machinery already installed. All equipment manufacturers cautioned Mr. Cosmetic Manufacturer to give good care to what he now has, suggesting that perhaps he can arrange with other nearby manufacturers for use or exchange of equipment, that cooperation will build esprit de corps such as exists currently in the packaging industry where, although

competition continues, one manufacturer aids another in supplying a customer so that the interests of the industry are best served.

And now Mr. Cosmetic Manufacturer came at last to the great pool toward which all the swiftly moving currents were directed. To the left loomed the packaging and packing exhibit of the armed forces—army, navy, marine corps. There he found the plastics, metals, glass, etc., all the materials he had used in his business in the past but now restricted to essential war production. The volume, profusion and diversity of these packagings stirred in him the hope that with Victory the old products will again be his, plus many, many new ones of which he now sees only hints but which may well change completely the old familiar faces of his packages.

Wanted: White Space

At the packaging clinic conducted by the Supermarket Institute at the association's recent convention in St. Louis, a reasonable request was made of all packers of food products. It was a simple plea for a small white space on every package in which to insert the retail price. It is an astonishing thing that something has not been done about this sooner. Obviously, the all-over design and dark background are not suited to pencilling in the price and it is becoming increasingly urgent, say the supermarket men, that all packages be individually price-marked.

This space should be provided, and if all packers would locate it in the same position on the label, that would help, too.—*Food Materials.*

Salt for Endurance

It is a common practice in the steel mills to make salt tablets available to workers as a means of averting heat collapse. But now it has been found that the administration of salt also increased the actual efficiency of workers suffering from heat fatigue. The U. S. Public Health Service has gone on record with the following recommendations to meet various working conditions: Light work should be treated with 3 ten-grain tablets per day; medium work with from 6 to 10 tablets; and heavy work with from 10 to 18 ten-grain tablets per day. — *Food Materials*.

Small Business Needed

Big business can't exist without small business. Indeed, its success is largely measured by the strength of its small business customers.

For instance, an ailing or greatly depleted distribution system at the end of the war would present terrific problems to big manufacturers. For these manufacturers—many of whom are now thoroughly occupied with the war effort—will need their wholesale and retail outlets when they return to producing consumer goods.

And by the same token the thousands of small manufacturing concerns are needed if we are to have a quick conversion to peacetime production and a thriving, virile free enterprise system after this war is over.—*Domestic Commerce*.

Women in Offices

Women do have splendid opportunities in office work today. A number of them will continue after the war is over, handling difficult assignments that they would not have had the opportunity to learn if the war had not come along. We believe there will be plenty of room for them, even after the men are discharged from the services. Quite possibly we shall be happy, later on, that during the war we did develop woman power in our offices.—*L. A. Griffin*.

Status of Urban Families

Only one out of eight urban families is now in the income class of \$1,000 or less annually, according to the Eighth Annual Estimate of Family Distribution by Income Groups released last month by Macfadden Publications. Increased pay envelopes, a 40% drop in relief rolls and a rise in the number of persons employed in each family were contributing factors to the rise in all incomes. According to the report,

in 1942 18% of the families were in the \$20-per-week or under class; 30.4% in the class with annual incomes between \$1,000 and \$2,000; 17.6% between \$3,000 and \$4,000; and 8.6% with incomes of \$5,000 or over.

Newer Burn Preparations

That glycerine is a most important ingredient of burn-treating preparations is further evidenced in the newer medical literature. A case in point is the recent article by C. H. Evans (J. Am. Phar. Assoc., Pract. Pharm. Ed. 3:235, July 1942) in which is suggested a glycerine-containing burn jelly to meet the rigid specifications of the Division of Medical Sciences of the National Research Council for a Tannic Acid-Sulfadiazine Jelly. The formula suggested is as follows:

Pectin, N.F. VII	5.0
Tannic acid	10.0
Glycerine	12.0
Sulfadiazine	5.0
Methyl parahydroxybenzoate	0.2
Sodium sulfite	0.2
Ringer's solution	67.6

Mix well the pectin, glycerine and sulfadiazine to a smooth paste. Dissolve the sodium sulfite, the benzoate, and the tannic acid in boiling Ringer's solution and add to the pectin paste, stirring well until it cools down to room temperature.

Interesting, too, are the glycerine-containing burn-treatment formulas given in a new E.M.S. Memorandum (No. 8) issued by the Department of Health for Scotland. Thus the approved formula for tannic acid jelly is:

Tannic acid	10.0 parts
Glycerine	10.0 parts
Tragacanth	3.0 parts
Eucalypti	0.1 part
Water, to make	100.0 parts

(This ointment must be kept in sealed jars to prevent mold growth.)

For treating burns of the respiratory passages such as the mouth, larynx, nostrils as well as the trachea and bronchii, it is tentatively suggested that the affected part be sprayed with a solution containing:

Glycerine	30.0 Gm.
Brilliant green	0.1 Gm.
Distilled water	70.0 cc.

Negro Market

The buying power of the negro population of the United States amounts to seven billion dollars annually according to a panel discussion on the negro market sponsored by the American Marketing Ass'n. Marketing men were advised that a new racial loyalty is developing among the colored people

which makes it advisable for manufacturers to employ negro salesmen when seeking to tap this market.

"Information Please"

As is being done by a number of business organizations, the Credit Bureau of Greater New York followed the "Information Please" radio program procedure in holding its 26th annual meeting.

This is a variation from the standard form of panel discussion which associations have long found most helpful in guiding the interchange of views at meetings.

Eight credit managers acted as information experts in discussing various phases of credit and collection policies and trends.

WPB and Incentive Plan

Whenever a plant's output per man hour rises by a given percentage, the pay, but not the wage rate, of everyone in the plant from sweeper to president, will be increased by the same percentage, according to the latest WPB scheme to increase production. The plan is awaiting approval by the President and it is felt that it might well be adopted by all types of manufacturers. Actually there is nothing new in the plan. At various times over the last quarter century it has been tried by manufacturers. In most instances practical obstacles which developed after the plan was put in operation, led companies to abandon the idea. Possibly WPB may evolve a workable plan and if so business will give it sympathetic consideration.

Federal vs. State Law

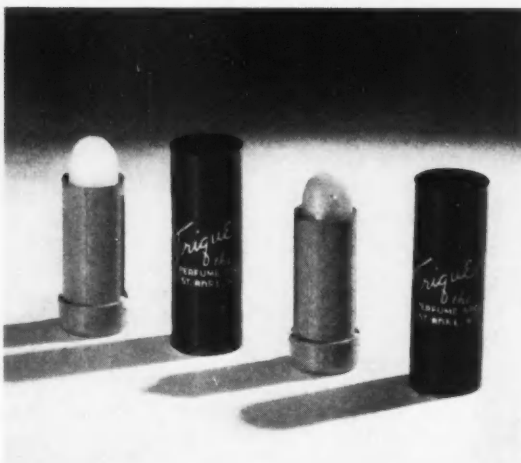
A California ice cream manufacturer found himself in a jam. The state law compelled him to provide a milk content of 10 per cent in his product and a federal order prohibited him from using more than 8 per cent of milk fat. Taking as his authority a recent decision of the U. S. Supreme Court that "the authority of state laws or their administration may not interfere with the carrying out of a national purpose," the Attorney General held that the federal law prevailed over the state law. "Where enforcement of the state law would handicap efforts to carry out the plans of the United States the state enactment must give way." Gradually one of the most troublesome effects of our dual system of jurisprudence is being ironed out. Whether for good or ill, power formerly lodged in the states exclusively is being usurped by the federal government.

Packaging

REPORT



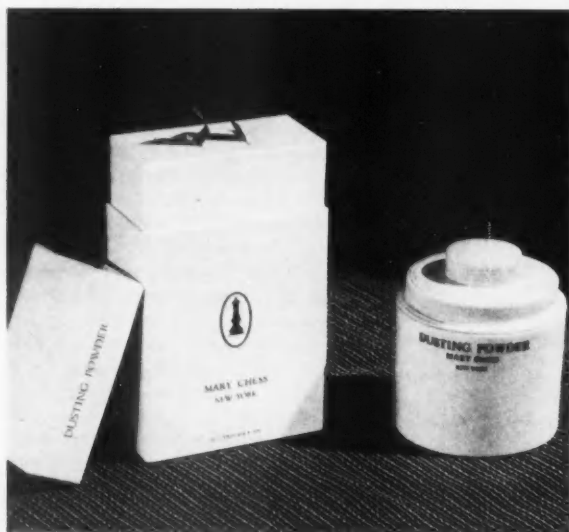
LYDIA O'LEARY: Bleached wood with shiny finish is Spot-Stik's new holder.



ANRÉ: Trique perfume sticks are presented in two odors, Coeurs de Fleurs for daytime and Bouquet for evening. The containers are red and black plastic.



LENTHERIC: Soft Focus leg make-up is a heavy lotion, taking only one application.



MARY CHESS: Replacing the cylindrical plastic container for dusting powder is a new cardboard box covered with cream colored glossy paper which is lettered in brown.



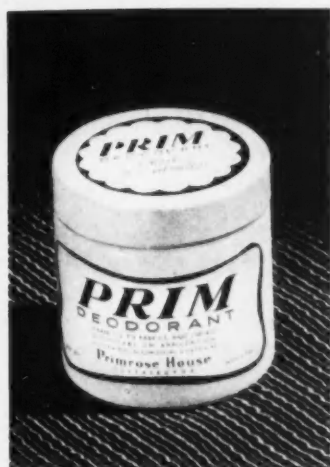
KAROFF: Army Navy Canteen cologne comes in a stone-like jug, khaki or blue, with a colorful hang-cord. The carton has an all-over design symbolic of the armed forces.



SOLO PALMER: Romance inspired this new be-garlanded setting for American Memories Brocade perfume. The package, created in seven colors, is called Garden Gateway.



MATCHABELLI: Aquamarine and gold are the colors for the new packaging of the Duchess of York fragrance. A number of items are added, making a complete sequence.



PRIMROSE HOUSE: Prim, a deodorant and anti-perspirant, is a double whipped fluffy cream.



LORR LABORATORIES: Reformulated and repackaged is Leg Tan, leg make-up, now available in two shades, natural, suntan.



VANGUARD SALES CORP.: Hand-Saver, in two sizes, is a skin protecting and cleansing cream.



MAURICE LEVY: Migou is a creamy body lotion offered in a United Nations floral parade of scents, each a different shade.



MILKMAID: A new leg make-up, emulsion type, is available in sun tan and town tan.



JEURELLE: Perfume Pac, a new cream perfume, makes its debut in a white case of plastic, adorned with blue flowers.

Sunburn Shown to be a Serious Cause of Absenteeism

Field studies indicate that over seven million man-days of labor will be lost this summer to war plants and industry from this cause . . . What must be done to prevent this waste of productive time

by LOUIS STAMBOVSKY

SUNBURN as a cause of serious absenteeism may seem farfetched. But to students of the subject, whose observations were made in the field, over a period of many years and in many localities, sunburn has been in past a formidable source of physical incapacity.

Because of our titanic war effort, labor will be permitted less vacation time this summer than ever before. This means that our industrial army will try to crowd into hours, solar irradiations which should have taken days. The results of such concentrated exposures upon defenseless skin are familiar to all. There are other provocative factors present this year. It has been a long hard winter with little or no spring. The high pressure of our production programs has drained the vitality of the worker in an unprecedented manner. Almost without exception everyone is looking forward to the day when he can again relax in the sun and drink in its life giving rays. The desire to get outdoors will therefore be stronger than ever, and with a minimum of time for its indulgence, it follows that we may expect a bumper crop of burns.

Estimates seem to indicate that about sixty million persons are gainfully employed in the United States, and most of them, directly or indirectly, are identified with the war effort. At least half this number will indulge in some sort of summer pursuit bringing them into the sun. Of these 30 million, 50 per cent or 15 million are likely to permit themselves to be harmfully burned — varying in degree from mild discomfort to complete incapacitation for 24 or more hours. The writer feels

safe in predicting from past experience that of these 15 million burns, half or over seven million persons will suffer partial or complete disability for 24 hours to 48 hours. Even if the damage results in moderate pain, such distraction is hardly compatible with maximum efficiency in countless critical operations. Supporting these estimates is the fact that during the months of June, July and to a lesser degree August, there are at least 15 million units of various burn treatments sold over the retail drug counters of America.

If these figures are accepted, it means that our war industries and/or those closely related, will lose seven and a half million man-days of labor, plus the dislocation of schedules and subsequent impairment of output. Translated into steel, ships, planes and tanks, seven and a half million man-days could have been a long step toward victory.

Such irretrievable waste of productivity is all the more deplorable by virtue of the fact that in the main, it can be prevented. The responsibility rests with our health and publicity agencies. The public know little or nothing of solar potency and tolerances. We must forcibly drive home to the laity a few simple but vital facts; most important that after a long sunless winter, the skin of the average person is extremely sensitive to sunlight; that burns can and must be prevented by either restricting initial exposures to within safe tolerances or the use of a good sunburn preventive.

We shall not discuss in detail the many angles involved. Suffice to say that the following table could serve as a guide for safe exposures until the skin becomes tanned:

Time required to produce	2 hours before Mean between		
	Noon	or after noon	10 am.-2 pm.
Minimum Perceptible Erythema	20 Mins.	26 Mins.	24 Mins.
Vivid Erythema	50 Mins.	65 Mins.	60 Mins.
Painful Burn	100 Mins.	130 Mins.	120 Mins.
Blistering Burn	200 Mins.	260 Mins.	240 Mins.

Vivid erythema is the absolute maximum non-injurious irradiation. It is also assumed that body rotation will allocate to the posterior and anterior and intermediate surfaces, portions of these periods so that no one surface will be subject to the entire irradiation.

There are a few more cautions. Over or near large bodies of water, because of reflection of ultra-violet rays, the above figures should be halved. The same is also true at high altitudes and in the presence of snow. Blondes and red-heads are from 100 to 200 per cent more sensitive than brunettes. They should therefore reduce the recommendations by 50 or more per cent.

Under average circumstances 60 minutes is the maximum safe initial exposure. If caution is impossible or undesirable, the same effect can be accomplished by the use of a good sunburn preventive.

Sulfonamide Paste

An improved method for making more economical glycerine-containing pectin pastes to serve as vehicles for sulfonamide drugs, is described by Professor K. F. Goldner, of the School of Pharmacy, University of Tennessee, in the *American Journal of Pharmacy*. To make 1,000 grams of a sulfanilamide paste, according to this investigator, 8 Gm. of sulfanilamide and 75 Gm. of pectin are rubbed with 180 Gm. of glycerine. To this is then added at once, and with sufficient stirring, a hot solution of 2 Gm. of benzoic acid in 735 Gm. of Ringer's solution.

Methods for making 500 Gm. batches were also described. Professor Goldner has also prepared a paste of sulfathiazole by employing the same procedure, despite the fact that this drug is less soluble than sulfanilamide.

What industry needs most is a bullet-proof, mechanically-controlled robot salesman that is deaf but not dumb.—Howard S. Neiman.



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MANUFACTURERS OF FLAVORS, AROMATIC CHEMICALS
AND ESSENTIAL OILS

Paper Box Simplification

W. E. Braithwaite, Division of Simplified Practice, National Bureau of Standards, who has been cooperating with the Industry Advisory Committee for the Cosmetic Industry with a view to eliminating non-essential sizes and varieties of paper folding and set-up boxes explained to the members of the Toilet Goods Assn. at its May 13 meeting the various proposals for doing this. The final report to the WPB will determine whether the proposed program is to be promulgated as a voluntary simplified practice recommendation or serve as the basis of a WPB order.

For face and dusting powder boxes a full telescope box composed of a cover, a base, a drum or powder receptacle and a projecting bottom, constructed without hinges, extra heads or lids, padded tops or other extra features made from paper board not to exceed the maximum calipers indicated in two tables was suggested. Snap-in bottom type boxes may have one extra bottom head heavy enough to lock the crimp on the drum.

Alternative recommendations are: No square, oblong, round or oval powder box shall contain more paperboard by weight than would be contained in a standard powder box of the same shape and cubic capacity. The same holds true of odd shaped boxes. Boxes may be either in individual folding cartons or in containers of not less than six boxes but not in both. It is recommended that set boxes to contain two or more assorted items be restricted in size and use as follows: The inside square area shall not be more than 150 per cent of the square area of the items packed. Methods of computing this area are given. Folding boxes shall not be used on items packed in set boxes except for collapsible tubes. Only one protective cover shall be used on any set box.

It is recommended that no box for packaging an individual bottle of perfume or toilet water shall be made with outside dimensions more than one inch longer, wider or deeper than the bottle at its widest point in each dimension. No box shall have more than one protective cover.

Cooperative Radio Program

The Independent Druggists of Southern California Voluntary Advertising Committee, organized to promote the sale of advertised brands of merchandise through independent retail drug stores by means of radio, has been so successful that the plan is being extended to northern California, where a committee has been formed under the chairmanship of the executive

secretary of the Northern California Retail Druggist Assn., Walter Gnerich, San Francisco. The northern committee will use two stations a day for short intervals. In southern California, the committee is headed by Roy S. Warnack, secretary of the California, Pharmaceutical Assn. Committee members are made up of retailers and wholesalers, all leaders in their respective fields. Advertisers pay for the maintenance of the campaign, retailers pledging themselves to co-operate in pushing the merchandise of those firms behind the plan. A contact man is constantly in the field now calling upon the retailers and accepting orders (of supporting advertisers), although not soliciting.

Latin American Imports

Department of Commerce reports general imports of merchandise from the 20 Latin American Republics last year exceeded our total exports to them by \$271,000,000. The heaviest balances were with Chile, Argentina, Brazil, and Columbia, and only slightly less in importance with Venezuela, Panama, and Mexico. There is considerable feeling in some agencies of our government that some of the Latin American republics are preparing not to do right by us. They have, it is reported, accumulated large reserves of merchandise through our facilities, and are now preparing to create internal monopolies designed to shut out our merchandisers and some merchandise, such as our pharmaceuticals and cosmetics and toiletries.

Alcohol Problem

The supply of alcohol is still in the same situation. You can hear apparently reliable reports from responsible sources here that alcohol will soon be easier, and the supply more plentiful; and from sources just as reliable you can hear equally authoritative reports that there will be no more alcohol available until this war is over. Meanwhile WPB announces the selection of new sites for alcohol plants scattered around the country, but you do not hear anything about the operation of new plants producing additional alcohol. The Commodity Credit Corporation also issued several statements about the negotiations it was carrying on with distillers for the sale of wheat to make alcohol. Two distillers met with the WPB to discuss their corn problems. Meanwhile the OPA issued Amendment 1 to MPR 28 permitting distillers to adjust prices for alcohol to enable them to offset the higher prices they are obliged to pay for corn, wheat and other grains.

For Heat Fatigue

Taking a leaf from the army's anti-fatigue powder which relies heavily on the vitamin C and citric acid factors which are possessed by lemon juice, the California Fruit Growers' Exchange is urging industrial plants having to combat heat fatigue to make lemon juice freely available to their employees, reports *Food Materials*. Excessive perspiration causes the loss of vitamin C from the body. By taking lemon juice, this needed factor is restored.

Soap Making in Turkey

The United Kingdom Commercial Corp. has started the manufacture of soap from local stocks of olive oil in Turkey. The corporation is a British government sponsored trading unit and is charged with trade development duties. Caustic soda is being obtained from the United States.

Cosmetic Stocking Demand

In the face of the demand for silk and rayon for war purposes and the scarcity of other suitable textiles for making stockings many cosmetic manufacturers are offering or soon will offer cosmetic stockings for summer use in anticipation of an enormous demand. The demand will probably materialize but whether it will be just a temporary war expedient will depend pretty much on the kinds of cosmetic stockings offered.

Faults which developed in the cosmetic stockings offered a year ago have been carefully analyzed and research chemists have been working over the Winter to evolve formulas to meet every requirement of appearance, of ease of application and removal and of wearability. If the products produced from these formulas, under the acid test of actual use by the public, give the service and satisfaction women are led to expect from them it is likely that the habit of using cosmetic stockings in warm weather will continue after peace.

Stopcock Lubricant

Laboratory workers will be interested in an ether-insoluble stopcock lubricant recently described by B. L. Herrington and M. P. Starr (*Ind. & Eng. Chem., Anal. Ed.* 14:62, 1942). The lubricating gel is prepared by suspending 9 grams of soluble starch in 22 grams of glycerine and heating to 140° C. After standing a short time, the clear solution is decanted from the sediment and allowed to cool. After standing overnight, the mixture has the consistency of a heavy grease.

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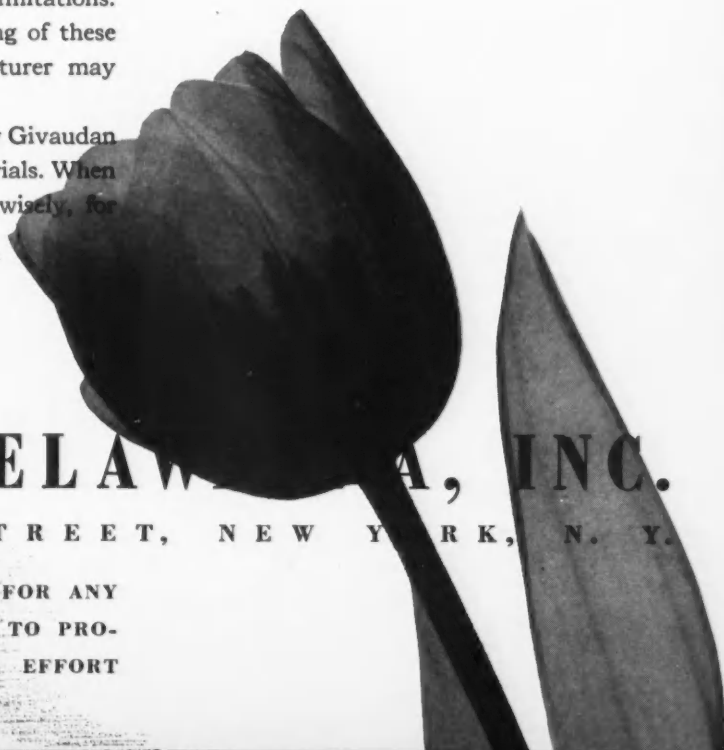
Unrecorded in any formula, these "ingredients," nevertheless, give to Givaudan products their quality... an immeasurable plus for the perfumer in these days of limitations. So fine is this quality and so skillful the blending of these perfume materials, that very often a manufacturer may achieve the desired effect with a lesser amount.

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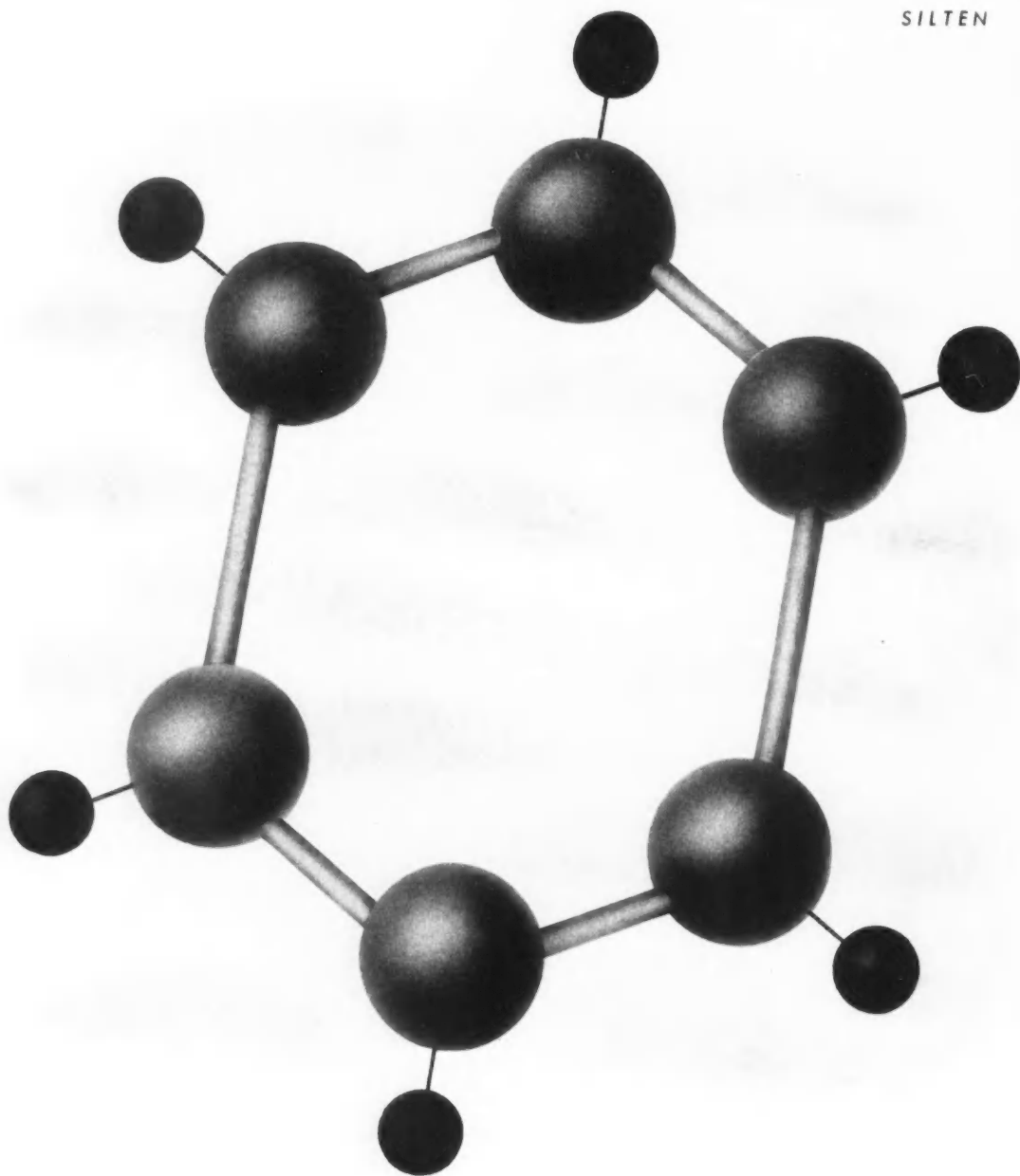
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oap

A New Soap Filler, Stabilizer and Water Softener

Gelatinous material from plants such as sisal give good lather to soap and help to produce stable and smooth toothpastes and toilet creams . . . Substitute for glycerine, honey and gelatine

by A. C. MERRIN

BRITISH patent protection has been given, recently, for methods of using gelatinous material from the fleshy growth of such plants as sisal in toilet preparations and soap. Sisal, agave, aloe, henequen, sansevieria, phormium and tenasc treated to an alkaline extraction process in water yield a gelatinous material which remains in solution whilst in an alkaline state but which can be dried to a powder or precipitated by weak acids. Such material whether in the "free" or "acid" form or in the form of neutral salts with ionized metals while (it is claimed by one patentee) being particularly useful as a filler and stabilizer in soaps and also has good water softening and dirt emulsifying properties, is beneficial in cosmetics as it has a skin softening action.

Small quantities of the gelatinous material, up to 5 per cent of the total weight of the mixture, serve effectively as a stabilizing agent but where the material is being used for its other desirable properties, e.g. as a filler, a considerably larger quantity may be used.

A gel obtained by hot extraction has a superior gelling power to that by cold extraction. The patentees designate a colloid extracted below 50° C. as Colloid A; one obtained above that temperature as Colloid B. Much smaller quantities suffice when applying Colloid B, e.g. 2 to 3 per cent for stabilization.

In following examples from British patent specification h°551,369 (Conrad

L. Walsh & Anthony A. Newman, patentees) the gelatinous material is obtained from sisal plant flesh by extraction with trisodium phosphate, sodium carbonate or potassium bicarbonate followed in some cases by treatment to reduce it to a salt or to the free acid form.

A SOAP EXAMPLE

From a soap composition to which 15 to 25 per cent by weight of a strong (6 to 10 per cent) solution of the potassium salt of the gelatinous material (Colloid A) has been added, a soap is obtained of good water softening properties or a high lathering power. Smaller amounts of soap are thus required for a washing operation resulting in an economy in use over detergents not so treated (about half of the above quantity is required when using Colloid B).

TOOTH PASTES—HAIR CREAMS

To tooth paste, hair creams and similar preparations is added 1 to 3 per cent by weight of a weak (2 to 5 per cent) solution of the potassium salt of Colloid A (about half with Colloid B), thus stable mixtures and smoother creams are obtained, it is claimed.

FACE CREAMS AND OINTMENTS

Cosmetic creams are admixed with 5 to 10 per cent by weight of the sodium salt of the gelatinous material (Colloid A) in strong solution resulting in a cream of improved texture and

greater stability and also having good skin softening qualities, state the patentees. The salt may be used entirely or partly as a substitute for the more expensive ingredients normally used such as glycerine, honey and gelatine (about half of the above quantity is required when using Colloid B).

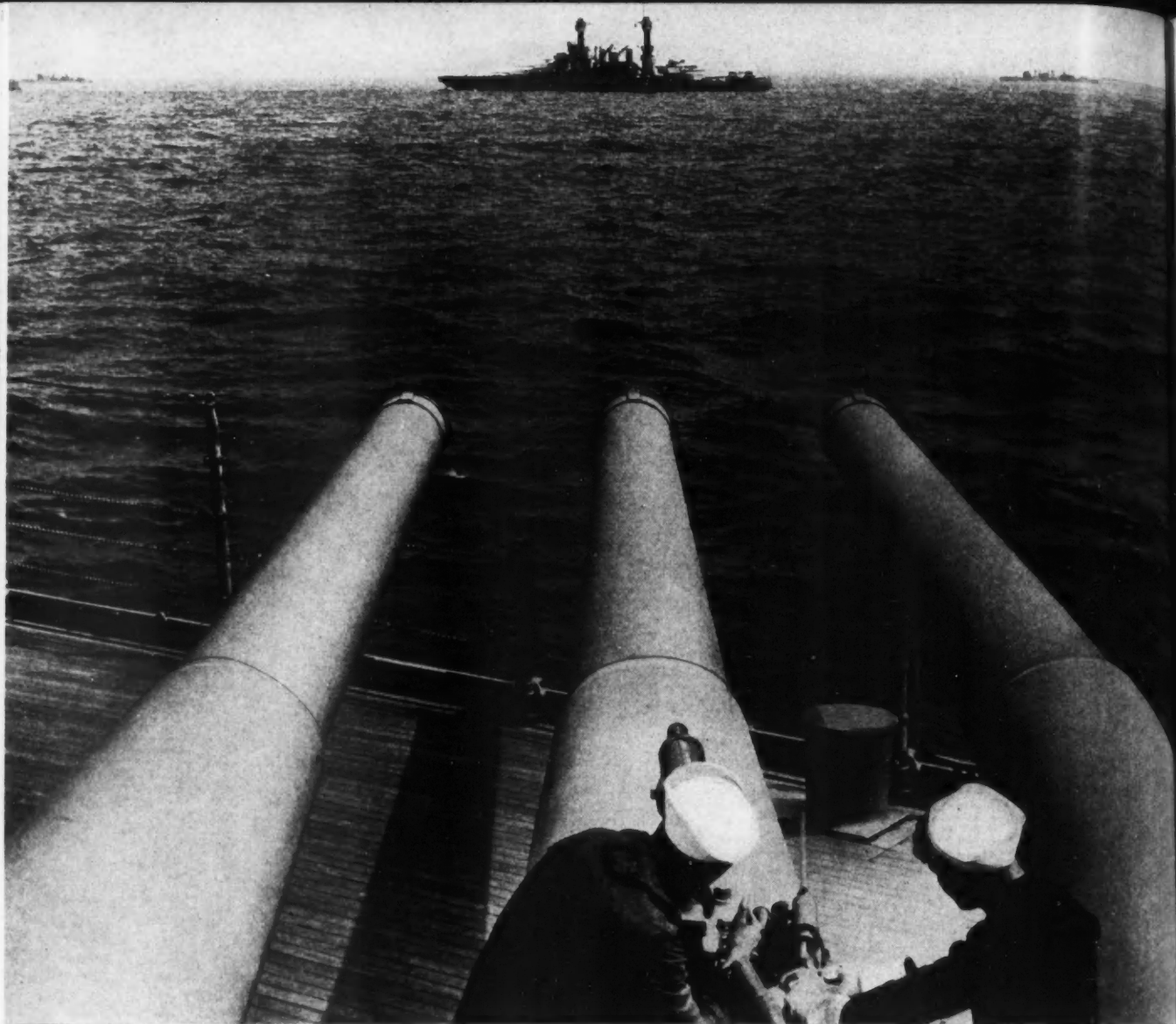
In these examples the gel is used in a more or less viscous but still liquid solution. It is possible, however, to first prepare a hard gel and then incorporate into this a small amount of other materials for use in the cosmetic trade. Thus a hard gel prepared from one part of Colloid B and 20 parts of soft water can be used as a vehicle for almond oil and other oils beneficial to the skin and also as an agent for "cutting" more expensive beauty preparations. The gel also has the property of retaining perfumes with great tenacity.

Silver-Cleaning Paste

The detergent and lubricating properties of soap are employed in this formula for a safe, non-scratching silver-cleaning paste, described by C. T. Small in a recent issue of *Chemical Industries*.

Soap	2.5 oz.
Diatomaceous earth	16.5 oz.
Sodium silicate	1.0 oz.
Water	80.0 oz.

The abrasive used here is soft enough for the finest silverware.



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Salt Water Soap Detergent

The Navy Department has commended the National Aniline Division of the Allied Chemical & Dye Corp. for its production in large quantities of a synthetic detergent used in making millions of pounds of "salt-water" soap used by the Navy throughout the world.

Large soap manufacturers are using this detergent, manufactured at the Buffalo, N. Y., plant, for the preparation under Navy specifications of a bar soap, which lathers freely in salt water and cold water. Ordinary soaps will not lather in salt water. The detergent, known by the trade name Nacconol, replaces the lathering properties formerly provided by the high lauric acid oils, such as coconut oil and palm kernel oil. It was developed by Lawrence Flett, company chemist, who was the Jacob F. Schoellkopf medalist in 1942.

National Aniline's production of this synthetic detergent is estimated to have saved this country large amounts of animal, vegetable oil and fats, filling our important need when supplies of coconut oil from the Philippines and other Pacific islands were cut off. Until Pearl Harbor, soap manufacturers had been using 5,000,000,000 pounds of coconut oil a year in making soap so it would dissolve quickly and make suds profusely.

Zinc Oxide in Soaps

A very interesting and helpful adjunct in soap manufacture is zinc white, or zinc oxide. Originally zinc oxide was used in the soap industry primarily in the cleavage of fats. The oils and fats which had previously been as well purified as possible were heated under pressure in the autoclave with water containing an addition of zinc oxide. Acids were then used to treat the soaps which formed. The zinc oxide, contrary to lime and magnesia, thereupon formed soluble salts, thus avoiding the formation of insoluble residues. The fatty acids produced from these zinc soaps were characterized by their light color.

In present times zinc oxide is primarily used as a whitening agent in soaps, which is particularly important when fats and oils are used which show a tendency to discolor, such as palm oil, for instance. As zinc oxide forms zinc soaps in connection with fatty acids, the formation of free fatty acids is avoided by its addition, a further advantage being provided by the antiseptic effect of soaps containing zinc oxide. The faculty of zinc oxide to act as a perfume fixative in a soap is also of particular interest, this faculty being based on its surface activity, besides which there is the chemical activity, as

a result of which evaporation of the perfume materials added is appreciably retarded. This binding effect is, however, not so pronounced as to impair or retard the odoriferous effect.

It is a matter of considerable importance that zinc oxide, when used in soaps, be free from all other metal oxides. Because of its basic character, zinc oxide has the faculty of neutralizing traces of acids which may be formed upon storage and thus to prevent rancidity. Inasmuch as zinc white, or zinc oxide, absorbs the chemically active ultra violet rays to a considerable extent, it also forms a good protection against the effect of light during storage, or when displayed in show windows or on counters without wrappers.—*Schimmel Briefs.*

Soap Spray for Jap Beetles

One of Japan's more destructive gifts to the United States, the Japanese beetle, may be eradicated by a recently patented spray invented by C. J. Austin. The spray contains soap, rosin soap, corrosive sublimate, and nicotine. The soaps not only act to emulsify the components so that they may be sprayed, but also supplement the destructive power of the poisons by drying up and clogging the insects' breathing tubes.

The inventor advises spraying in the early morning, before the beetles start their flight, and in the afternoon, when they settle down for the night. The ground around the plants should also be sprayed to catch those beetles which did not receive the entire lethal dose.

The spray itself contains:

Rosin	10 lbs.
Lye	1 lb.
Fish oil soap	1 lb.
Corrosive sublimate	1 lb.
Nicotine sulfate	1 oz.

The first three ingredients are boiled in 10 gallons of water until the mixture turns black; the corrosive sublimate and nicotine sulfate are then added in 20 gallons of water. For spraying fruit trees, hardy shrubs, grass and weeds, the mixture should be diluted with two parts of water. For beans and other delicate plants, dilute with three or four parts of water.

Mosquito Control

With the coming of summer, attention again turns to the problem of eliminating the mosquito. A number of preventive measures are available, particularly the use of petroleum oil or larvicides spread over pools or standing water. If these toxic or inflammable chemicals sometimes used as preventive measures are objectionable, ordinary soap may be used. In concentrations of about 0.1 to 0.25 per cent, soap re-

duces the surface tension of the still water so that the pupae are unable to maintain their normal floating position and suffocate. For the same reason, the egg-laying mosquito cannot be supported so that egg-laying is interfered with; moreover, the egg boat will not float in soap containing water. Higher concentrations of soap (0.5 to 1 per cent) kill the mosquitoes directly.

Soap Aids Fruit Growers

Not only does soap increase our crops by its use in many insecticides, but also in a more direct way, by helping prevent premature falling of fruit. According to G. S. Avery, Jr. (U. S. Pat. 2,284,970), the application of certain chemicals to the branches of fruit bearing trees will prevent undesirable abscissions. A significant proportion of most fruit crops is ordinarily lost by fruit falling down before ripening. Now, by use of this new procedure, the farmer can almost automatically raise his yields without making any new plantings. The importance of the method in these times can hardly be overstated.

To prevent washing off of the chemicals (called auxins), they are applied dissolved in the wax portion of a wax dispersion in water, the whole stabilized by means of common soap. This ingenious technique also enables the plant to absorb the auxins gradually and evenly, without interfering with respiration.

Another wax suspension, stabilized by soap, has been suggested for coating fruits and vegetables. It is more or less well known that many fruits can be stored for much longer periods if they are previously given a thin wax coat. A recent improvement in this process utilizes a mixture of a hard wax (such as carnauba or candelilla) and a soft one, preferably a paraffin wax. The waxes are melted together and then dispersed in a hot solution of soap. One novel feature of the procedure (U. S. Pat. 2,288,351) is the use of a soap made from cocoanut oil and rice bran oil. The resultant dispersion is said to have high wetting power, a characteristic necessary for the formation of a complete, adherent coating. This quality is supplied by the soap present.

Two Important Questions

Whether business or Government will manage our post-war economy will be determined by the answers to two questions. First, can business do the job? Can business, free enterprise, provide the necessary employment and distribute the output fairly? Second, which can do the better job, business or Government?—*Domestic Commerce.*

KIMBLE Moulded CONTAINERS



TO BATTLEFRONTS...

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lavors

Scope of Tobacco Flavoring Virtually Unlimited

Wide range of essential oils, aromatic materials, sweetening agents and humectants employed to create new and popular brands of tobacco . . . Opportunity for new flavoring agents

by E. M. SCHWARTZTRAUBER*

AROMATIC substances frequently used as intriguing flavors in the processing of tobacco products are tonka-beans from Venezuela and Brazil, vanilla from Mexico and Tahiti, licorice from the Soviet Union and Spain, St. John's bread from the Mediterranean, chocolate from Brazil and other American republics, maple sugar, rum, alcohol, deer's-tongue, and fruit flavors from our own country. Essential oils, such as rosemary and nutmeg, might be added to this list of aromatic substances.

A material which is not a flavoring, but nevertheless important in tobacco manufacture, is glycerin. Its non-toxic, non-irritant properties make it an ideal hygroscopic, or moistening, agent. Used as a spray on shredded tobacco or as a "dip" through which the leaf is run, glycerin serves to hold together the tiny shreds of tobacco and gives the cigarette constant burning qualities. Twenty per cent of all chemically pure glycerin produced is used for this purpose in normal times.

Because of the exigencies of war and shipping uncertainties, serious shortages in these materials have occurred. Glycerin for tobacco manufacture has been cut. The use of rum, tonka-beans, and licorice is automatically reduced because of transportation problems.

Tobacco flavorings are jealously guarded secrets, for they impart an individuality to the blend of cigarette or

smoking tobacco which endears it to the trade. Details of formulas are scarce, and the layman has difficulty in penetrating the veil of mystery which obscures flavoring processes. A few basic facts, however, may be revealed.

Cigarettes are blends of several domestic types of tobacco, with the addition of Turkish and other leaf, and in some cases, touches of Latakia, from Lebanon, for zest. Likewise, perique from St. James Parish, La., furnishes a flavorful touch to the domestic tobaccos used in our smoking mixtures.

Prominent among domestic types, bright flue-cured leaf is cultivated extensively in the Carolinas and Virginia, and to a lesser extent in Georgia, Florida, and other sections. It is cured by carefully regulated heat. Burley tobacco, also light in color, comes mainly from the Kentucky and Tennessee regions and is dried in large, especially constructed barns. In contrast, the cigarette leaf from Turkey, used in American blends, is cured in the direct sunlight of the hot, dry climate of eastern Europe and Asia. The manner of curing tobacco has a direct bearing on the flavor of the particular leaf.

FLAVOR-GIVING QUALITIES

Inherent flavor-giving qualities of tobacco are its sugar, resin, and volatile-oil content, which vary according to type of leaf and the curing process employed.

To effect a proper balance among these components, to counteract certain

deficiencies in aroma, and to neutralize acidity, it is necessary to add foreign materials. Bright tobaccos, for instance, have a high sugar content, but are low in volatile bases and resin; burley is deficient in sugar and resin in volatile oils; Turkish tobaccos contain a high percentage of sugar. To compensate for sugar deficiencies the leaf is dipped or sprayed with "casings" of corn sirup, maple sugar, honey, molasses, and various fruit sugars. Fruit extracts of apricot, pineapple, peach and prune are used largely in chewing tobacco or snuff, where a sweet, heavy flavor is desirable. Glycerin, diethylene glycol, sorbitol, or other hygroscopic agent is sometimes added to the casing or dip.

IMITATION MAPLE PREFERRED

Compounds or imitations of sugar flavorings are frequently used with success. It is claimed, in fact, that simulated flavors, because of their uniformity, work better than the genuine substances, one batch of which might differ markedly from another. Such is said of imitation maple flavoring.

To correct aromatic deficiencies, numerous essential oils, such as anise, cinnamon, cloves, nutmeg, lavender, and attar of roses are employed. For aroma, vanilla and tonka-beans—strong in coumarin—take the lead. Lack of resin—the source of natural tobacco aroma—in some domestic leaf types is met by adding small quantities of specially cured Latakia tobacco from Leb-

* Department of Commerce.

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anon, and perique from Louisiana. When shipments of Latakia were shut off at least one company developed an imitation which creates the same heady, smoky effect in a blend as the original. This product should be mixed with glycerin and sprayed on the leaf. Oleoresins (essential oils plus resins), such as oil of cocoa, vanilla, and tonka, are dissolved in rum, which acts as the carrying agent. Because of the volatile character of rum, very little of its original aroma remains in the finished product. Resinoids, such as various benzoin compounds, act as fixatives; they furnish a broad, basic odor which will give body to otherwise elusive essences. Further complicating the delicate matter of flavors is the effect of lighting a cigarette or pipe. Results of processing tobacco cannot always be predicted because burning alters materially the character of the aroma, the burn of a cigarette being more intense than that of a pipe or cigar.

The story behind some of the more common tobacco flavors, such as tonkabans, licorice, and deer's-tongue, takes one to the jungles of South America, to the Taman Peninsula of the Soviet Union, and to the lowlands of Florida.

A great favorite with tobacco manufacturers is licorice, used largely in cigarettes, smoking and chewing tobacco. It is extracted from the roots of a perennial herb of the bean family (*Glycyrrhiza glabra*) native to southern Europe, northern Africa, and western Asia. Deer's-tongue or *Trilisa odoratissima* (also called dog tongue or vanilla plant) is a native herb of our own southeastern states. This plant has been exploited commercially only for a comparatively short period. Because of its coumarin content, it has proved to be an admirable substitute for vanilla and other sweetening or flavoring agents in the tobacco industry, especially smoking tobacco and snuff.

LAVENDER AND OTTO OF ROSE

The list of essential oils employed in tobacco manufacture is as dazzling and varied as that of a French perfumer. It seems that, where these oils are concerned, it is every manufacturer for himself—and, to give an elegant finish to his product, he adds a dash of one or more oils, such as anise, bergamot, cascarilla, cardamon, cinnamon, cloves, coriander, gentian root, menthol, nutmeg, orris, rosemary, valerian, and even bois de rose. A rugged but fastidious pipe smoker might ridicule the idea of such refinements as lavender and otto of roses—but, if these were removed from his tobacco, he would probably miss something in the aroma of the smoke curling from the bowl of his favorite briar. Anise, formerly sup-



Type of leaf and cutting method employed govern the inherent flavoring qualities of tobacco

plied largely by China, French Indo-China, and Spain, is being cultivated here in the Kentucky region, at least for the "duration."

BERGAMOT FROM BRAZIL

Since Italian bergamot, oil from a hybrid citrus fruit, is now cut off, perfumers and tobacco manufacturers will have to content themselves with the Brazilian product, unless Florida and California growers learn the art of cultivating bergamot in the Italian manner. Bois de rose, or rosewood oil, is highly prized by perfumers for its delightful blend of rose, lemon, and bergamot odors.

Since cascarilla comes from Ecuador, and from the Bahamas and other West Indian islands, users of the bark should not fare so badly. Cardamon from India may become very scarce. Coriander seed from Europe, the Soviet Union, India, and Morocco will be cultivated to a greater extent here, it is believed. Gentian root is grown in France, Spain, Yugoslavia, Italy, and Turkey, but United States manufacturers may have to get along with shipments from Spain.

Lavender flowers from France and the United Kingdom are rare. Spike lavender, from the uncultivated plant and of a less true odor, is supplied by Spain. Everyone is familiar with the clean, spicy fragrance of nutmeg, cinnamon, and cloves, and can appreciate their value in flavoring tobacco. Cinnamon oil is distilled from the bark and leaf of the cinnamon tree growing in Ceylon. Most clove oil comes from Madagascar and Zanzibar. Nutmeg oil is distilled from the seed of the nutmeg tree in the Netherlands Indies. Although the best quality oil comes from this source, we have to manage with what is produced in the West Indies. Supplies of orange oil from French Africa and Italy are out and are sup-

planted by domestic production in California and Florida, and from the new Brazilian industry. Orris root from Italy and otto of rose from Bulgaria are impossible to get. Shipments of rosemary from Spain are being received regularly. Valerian from India is scarce, but cultivation is now under way in Chile, and a few shipments will probably be made in 1943.

TOBACCO FLAVORING UNLIMITED

The scope of tobacco flavorings is practically unlimited, and the manufacturer may give his imagination full swing in the matter of dressing up his product, says *Foreign Commerce*. This admirable flexibility may prove valuable in the future. The supply situation is serious and is already imposing drastic changes in formulas. Nevertheless the resourcefulness of tobacco flavoring experts may be relied upon to solve the problems as they arise.

Chewing Gum Bases

It seems that the value of glycerine-formulated resins is practically endless. Now the patent literature describes the use of the glycerine ester of polymerized rosin as a suitable base for chewing gum. According to U. S. Patent 2,286,712, issued to J. N. Borglin, the glycerine ester is preferred to the other possible bases because of its completely nontoxic nature, its consistency and other properties, and because it is commercially available at a low price.

The glycerine ester may be mixed with the usual sweetening and flavoring components that go into the making of chewing gum. It is claimed that the use of such a base affords greater resistance to deterioration, greater ease of formulation, better retention of flavor and economy of manufacture, since it permits the use of less chicle or no chicle at all.

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F.E.M.A. Meeting

Final plans for the 34th annual convention of the Flavoring Extract manufacturers' Assn. to be held at the Hotel Pennsylvania, New York, N. Y. May



Louis A. Rosett
Scientific Research



Lloyd E. Smith
President

24 and 25 are being completed; and a record attendance is expected.

It will be strictly a business affair with no entertainment features. However luncheons will be held both days as well as dinners and these will be covered by the convention ticket. Cocktail parties will be held Sunday evening and also prior to dinner on Monday and Tuesday evenings.

Inasmuch as New York offers many opportunities for entertainment, members and guests will be able to arrange their spare time in groups as they see fit.

E. Leidy Brendlinger is in charge of

convention arrangements which is assurance that the affair will be run efficiently. The complete program of speakers has as yet not been announced but it will include authorities in the government and as the program is being arranged by Louis A. Rosett it may be taken as a foregone conclusion that matters of vital importance to the welfare of the flavoring extract industry will be discussed.

The energetic John H. Beach who has done yeoman service for the association will give the report of the Advertising Committee. George H. Burnett who has worked diligently for years on the problem will report on the alcohol tax. Garret F. Meyer will discuss bulk sales promotion and Wil-



E. L. Brendlinger
Secretary



George M. Armor
Standards

liam Hottinger, Jr., will report on legislation. A report that is always looked forward to with much interest is that of Louis A. Rosett, chairman of the

Scientific Research Committee. C. E. Langfield will report on costs; Joseph A. Huisking will advise about the status of the membership and George M. Armor, one of the sturdy veterans of the association, will report on standards. The kinks in transportation will be explained by Frederick J. Lueders and William B. Durling will talk on trade relations.

Vitamin C in Roses

German agriculturists are being urged to engage in large-scale planting of pseudocarp-bearing roses, and also plants of the *Rosa rugosa* Thbg. variety, for their amazingly high content of vitamin C says *Food Materials*. The fresh hips of the rose plant contain 0.535 per cent of vitamin C, which is equivalent to 1.660 per cent of the dry substance. Diminished supply of citrus products has stimulated the search for new vitamin C sources with the result that rose hips are being advanced as the most concentrated natural source of the anti-scorbutic vitamin available.

In England, numerous species of roses have been found to contain large amounts of vitamin C, often exceeding 1 per cent, in the flesh of the ripe hips. Species indigenous to Scotland and northern England appear to contain somewhat higher amounts of the vitamin than those roses commonly found in southern England.



Leslie S. Beggs
Treasurer



John S. Hall
General Counsel



George H. Burnett
Alcohol Tax



F. J. Lueders
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Garret F. Meyer
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SUBSTITUTES FOR NATURAL FLORAL ESSENCES

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value of high quality substitutes***

THE international situation is serving to emphasize the fact that there are countless places where synthetic floral essences can replace the natural floral products with a great deal of satisfaction and marked success.

The ingenuity of American chemists is demonstrated by the fact that American made creations not only reproduce the fragrance of the living flowers with marked fidelity and that they may be employed with complete success but that they are also *preferred* in many instances because of the uniformity in quality which they assure to say nothing of the economies they make possible.

If you find difficulty in obtaining any natural floral product write to us for a substitute. All we ask is that you give it a trial.

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New Products, Ideas and Processes

Wooden screw caps

Wooden screw caps which are said to be made of seasoned wood in a relatively thin shell with threads clean and accurately cut are offered by the Xylon Closure Corp. in 28 mm. sizes. Later they will be available in sizes ranging from 16 to 33 mm. The caps may be coated in any desired color or used without color.

Paper screw closures

A new all-paper continuous thread screw cap in a one-piece shell made of impregnated board is announced by the American Seal-Kap Corp., Long Island City, N. Y. The shell and thread are die-formed by machinery so as to produce a thread of equal depth. The thread is entirely on the inside of the cap. Both the paper stock from which the caps are made and the impregnating waxes are non-critical materials. It is stated that any disc liner used in metal caps can be used in this paper cap. They may be had in 45 mm. and larger sizes.

Viscosity tester

For determining the viscosities of thick and slow running solutions a new Young McArdle Viscometer is offered by R. P. Cargille. It contains 11 sealed tubes containing liquids of certified viscosity and four empty tubes of exactly the same size for making comparisons. Viscosity is determined by inverting the sample and comparing the speed with which its bubble rises with the speeds of the bubbles in the 11 known standards. Similar viscometers are available in smaller sizes for less viscous solutions.

Utility can

A 20-gallon utility can made of fibre-board with a bursting strength of 500 pounds per square inch is offered by the Arvey Corp. It is impregnated with an oil and water resistant thermoplastic with an overlapping lid of the same construction.

Masking agents for isopropyl alcohol

By masking and mellowing the odor of isopropyl alcohol it can be made a very useful product, it is pointed out by Schimmel & Co., 601 W. 26th St., New York, N. Y. The company announces that it has developed several highly serviceable masking agents for isopropyl alcohol and for the convenience of its customers it is sending out return postal cards on which they may write

as to the type of product in which they intend to use it. Suggestions and a sample of the masking agent best suited in the particular case are then submitted.

Deodorant oils with formaldehyde

Deodorant oils known as Klenz-Aire which may readily be mixed with formaldehyde and water in proved proportions are offered by Aromatic Products, Inc., 15 East 30th St., New York, N. Y. Deodorants of this type, it is pointed out, may be had in numerous popular odors making a finished deodorant spray in milky emulsion form which may be colored any shade to make it more attractive. Klenz-Aire, it is claimed, will kill all tobacco, cooking, theatre and tavern odors and will clear the air of any public place where crowds assemble.

Ceramic caps

New ceramic screw caps for bottles and jars made by the Atlantic Tile Co. and distributed by the Vanderlaan Tile Co. are available in 22, 28, 38, 63 and 89 mm. sizes, glazed and unglazed, and in 60 colors and shades. Dies are also said to be procurable for all sizes.

Bellows vacuum pump

A new positive type vacuum pump to exhaust fumes from a laboratory or factory is offered in two sizes by the American Automatic Typewriter Co. The pump employs four bellows and is supplied with or without individual electric motor drives.

Water resistant adhesives

Water-resistant and waterproof adhesives for fabricating, packing, sealing and labeling are offered by Paisley Products, Inc. Details about the proper uses of the adhesives are given in a six-page folder, available on request.

New paper adhesive

A new adhesive to seal protecting paper to highly polished surfaces has been developed by E. I. du Pont de Nemours & Co. It is claimed to have no chemical effect on plastics, will withstand extreme temperature changes and humidity and will not discolor. At present it is being supplied exclusively for use in army airplanes.

Water repellent

A quick new method of rendering paper, ceramics, cloth, etc., water repellent has been developed by the General

Electric Co. The method consists in exposing the object to be coated with the "invisible raincoat" to any one of several chemicals, one class being known as methyl chlor silanes. The coating is so thin that its structure cannot be determined by chemical analysis; yet it is said to prevent water from spreading to form a continuous film. If moisture collects it forms into isolated drops and does not sink into the underlying material.

Heat-resistant paint

A new anti-corrosion and heat-resisting paint known as Protectite is offered by J. Merrill Richards. None of the materials employed in making it is on the critical list. The main component is a hard, calcined, carbon silicate pigment and is supplied in two colors, black and gray. It is used for general maintenance and on hot spots such as boiler pipes, stacks, etc.

Imitation peppermint oil

An imitation peppermint oil known as Norimint V is offered by the Northwestern Chemical Co., Wauwatosa, Wis.

Activated chlorophyll deodorant

Airkem, a general deodorant, is announced by W. H. Wheeler, Inc., New York, N. Y. It is offered for retail distribution only outside a certain territory which is controlled by Seeman Bros. Within this territory, however, the company has retained the right to pursue industrial and institutional applications, since these require special studies. Airkem, it is pointed out, is distributed by vapor tension alone. Monthly replenishment prevents it from being exhausted. The principle on which it works consists in introducing activated chlorophyll into the confined space which it is desired to deodorize. Further information about this product and its proper use for refreshing indoor air or neutralizing odors will be sent on request.

Artificial spice oils

A new line of artificial spice oils to be used in any preparation in which natural oils were formerly used is announced by Givaudan-Delawanna, Inc., 330 W. 42d St., New York, N. Y. They require no changes in formulas.

Export packaging specifications

Concerns which package for shipment overseas should ask local WPB offices for the 204-page booklet "Army-Navy General Specifications for Packaging and Packing for Overseas Shipment." It was prepared by the WPB Container Coordinating Committee and contains information needed by all exporters.

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Announcements

Use and care of fire extinguishers

A new booklet explaining the use and care of fire extinguishers is offered by the American-LaFrance-Foamite Corp. The booklet is divided into six sections covering the various types of fire extinguishers as well as up-to-date charts giving complete data in condensed form as to extinguishers' characteristics, methods of operation, capacity, etc.

Water pure as distilled

Manufacturers requiring water as pure as distilled water may be interested in a paper on "Demineralizing Solutions by a Two-Step Ion Exchange Process" available at the Permutit Co.

Women in science

"Women in Science During the War and After" is the subject of a folder issued by the Philadelphia College of Pharmacy and Science. The folder informs qualified and interested young women how they may assist in the war effort and reconstruction.

Raw materials catalog

The latest catalog of Van Dyk & Co., 57 Wilkinson Ave., Jersey City, N. J., lists raw materials for perfumery, cosmetics and soaps, and in addition numerous other products such as deodorants, sun screens, foaming and wetting agents, antic-oxidants, preservatives and antiseptics offered by the company are given. Synthetic aromatic chemicals, fixatives, perfuming specialties and perfume oils as well as flavoring material are covered in the catalog.

Useful chemical charts

A valuable series of charts published by Merck & Co., Inc., Rahway, N. J., now is available to research and industrial chemists, teachers and students of chemistry, pharmacy, medicine, and related subjects. The company will send copies of any of the following on request: Periodic Chart of the Elements; Qualitative Analysis Chart; Sensitivity of Qualitative Reactions.

Training courses at office or factory

Companies in the New York territory concerned with the problem of operating under government regulations or of training personnel will be interested in the new series of courses offered by the School of Commerce, Accounts and Finance, New York University, Washington Square, New York, N. Y. By special arrangement the courses or others designed to meet particular

training needs can be given at any company plant or office, according to Dean J. T. Madden. The courses cover government regulations, management, market research, accounting, banking statistics, business writing, public speaking and retailing. They are designed to help men and women in business in a hurry and will cover a period of six weeks in the evening starting April 12.

Books to Aid You

MICROMERITICS. *The Technology of Fine Particles.* J. M. DallaValle, M. S., D. S. 6x9 in., 428 pages, 97 figure illustrations. Pitman Publishing Corp. 1943. Price \$8.50.

For the first time the behavior and characteristics of particles ranging in size from microscopic resolution to visibility by the naked eye are treated in this excellent work on particulate technology. It brings together a mass of widely scattered information on methods of particle measurement, size distributions, packing arrangements and a general theory concerning the physical properties of finely divided substances. Micromeritics is a new name in science, the science of small particles, with broad implications in industry. In this work only particles within a definite range of size are considered. These include submicroscopic, microscopic and relatively microscopic sizes. Much hitherto unpublished data is given on the manner in which fine material packs. There are 18 chapters. Among them are: Theory of Sieving and Grading of Materials, Characteristics of Packing, Electrical, Optical and Sonic Properties, Chemical Properties of Small Particles, Infiltration and Particle-Moisture Relationships, Capillarity, Theory of Fine Grinding, Collection and Separation of Particulate Matter from Air. A selected bibliography, an appendix and an author and subject index add to the book's value.

CHEMICAL TECHNICAL DICTIONARY. *German, English, French and Russian.* A. W. Mayer. 9x6 in., 872 pages. Chemical Publishing Co. 1942. Price \$8.

This is the first American edition of this well-known work and was translated under the direction of Prof. B. N. Menshutkin and Prof. M. A. Boch. The German spelling of scientific terms as accepted by Jansen and Duden is adhered to. The formulae of organic compounds correspond to those accepted by the German Chemical Society; and the formulae for minerals are from G. Chermak. For some words there is a

definition of the given word enclosed in parenthesis immediately following the Russian translation. Many words have subgroups arranged in alphabetical order. The dictionary will be useful to those desiring to study the German, French and Russian chemical literature, to translators and to college students. The difficulty with the very useful work is that it has not an English-German section. The form is just the reverse, but despite this anyone familiar with the subject will find it to be a handy help.

PROTEINS, AMINO ACIDS AND PEPTIDES. Edwin J. Cohn and John T. Edsall. *Chapters by John G. Kirkwood, Hans Mueller, J. L. Oncley and George Scatchard.* 6x9 in., 686 pages. Numerous charts and tables. Reinhold Publishing Co. 1943. Price \$13.50.

This scholarly work is one of the American Chemical Society's monograph series. In it the authors attempt a characterization of amino acids, peptides and proteins. Evidence concerning the size and shape of these molecules and the number and distribution of the electric charges which they bear is examined. Implications of their charged structure for their physical properties and their physio-chemical interaction with other molecules are especially considered. Discussion of protein surface films and of denaturation is omitted. In a later work the effect of dipolar ions on reaction velocities and other topics whose discussion is postponed, will be taken up.

The information contained in the 25 chapters bring to light much valuable information of value to the research chemist and the practical worker. Dielectric increments of ellipsoidal molecules of different axial ratios are given in the appendix. A table of symbols, a subject index and tabular indices of amino acids, peptides and proteins add to the value of the work.

SUPERVISING THE WOMAN WAR WORKER. 5 x 8 in., 34 pages, paper covers. National Foremen's Institute, Inc. 1943. Price 50 cents. (Discounts for quantity orders.)

This useful manual is all about women and is intended for men. It aims to embody the best thought on the supervision and training of women. It tells what jobs women can do, those that they are now doing, the best methods of hiring, how to set up standards of fitness and of performance for typical jobs, wages of women, how to rate them for promotion and other matters to which the executive must give careful attention if he wishes to get good work done.

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SUBSTITUTES
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Today, he is a much harassed man.

Not only are vital ingredients denied him — unavailable or price prohibitive — but the substitutes that he so painstakingly created to take their place, have themselves been placed on shortage or priority listings. Today, he must concentrate the full measure of his skill in the creation of *Substitutes for Substitutes*.

Many manufacturers, fighting to keep production moving, have turned to us with their problems. We have, in most cases, been able to supply the necessary help. Our research chemists have, for more than a quarter of a century, made the Florasynth name a byword in the industry, for the creation of effective and successful synthetics. So much so, that our reproductions of natural floral absolutes and true essences have long been accepted as *primary essentials* in the manufacture of countless successful perfumes, lotions and other toiletries.

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Check List

Federal rules and regulations on price control, allocations and other regulatory measures issued or proposed during the past month digested.

Suggests smaller content of ten cent packages to save vast trade

Edward Morrish, ex-chief of the cosmetic section OPA Chemical Branch, has suggested that the contents of containers be reduced slightly so that ten cent sizes can still be sold at a profit. As an alternative he suggests doubling the contents and charging 15 cents. The principal item of cost in supplying ten cent items is the package. Unless the pricing problem and material shortage dilemma is solved on these ten cent items it is possible that that may be forced off the market for economic reasons, manufacturers, distributors and retailers concluded after a round table discussion with OPA representatives, April 20.

Cosmetic material supply situation in a nutshell given by Willard

C. A. Willard, deputy chief of the drugs and cosmetics section of WPB, analyzes the raw material shortage as follows:

Glycerin—None, supplies short even for war.

Propylene glycol substitute for glycerin—Not enough for all needs; preference will be given to toothpaste uses.

Alcohol—Little likelihood of an increase of the 50 per cent allowance now in effect.

Certified dyes—Amendment to allocation order on the way.

Castor oil—Supply very scarce.

Talc—Two months' working inventory of stearate talc allowed.

Phenol resins—Out completely.

Urea resins—Getting scarcer. Use should be limited to closures. May be allocated.

Thermoplastics—Available in limited quantities.

Government stocks of alcohol over 100,000,000 gallons

Government stocks of alcohol are over 100,000,000 gallons. The large reserve will be maintained for some time because anticipated production for next 18 months equals expected demand.

Manufacturers using glycerin substitutes must determine toxicity

Manufacturers using substitutes for glycerin must investigate the toxicity of the substitute, according to a memorandum of the Food Distribution Administration. Under no circumstances

should ethylene glycol, diglycol, carbital, polyethylene glycol or other toxic substitutes be used in any product, whether food, drug or cosmetic, which is likely to be taken internally or otherwise absorbed by external application. Before using any proprietary glycerin substitute inquiry should be made of the manufacturer to determine whether any of the foregoing compounds or other toxic substitutes are present. If in doubt consult the FDA.

Market area restrictions on packaged washing powders, cleansers removed

Market area restrictions affecting packaged washing powders and cleansers having 20 per cent or less dry soap content were removed April 21 by amendment 1 to OPA's Commodity Practices Regulation 1.

Glass containers and closures restricted to 60 days' supply

Since April 18 no commercial user of glass containers or closures shall accept or have any supplier set aside for him any empty new glass containers which will increase his inventory more than two carloads or the total of his reasonably anticipated requirements for the next 60 days, whichever is greater, according to L-103-a of WPB.

Available propylene glycol being restricted due to glycerin ban

Drug requests for propylene glycol in February were filled almost completely, but cosmetic requests were cut to 29 per cent. Requests for it for food and flavoring uses were granted up to 80 per cent. In March increased pressure on propylene glycol as a result of glycerin cuts of April 1, forced further reductions in the amounts available for cosmetic, flavoring and food uses. In March cosmetic use of diethylene glycol was put on a quota system. Further cuts are anticipated.

Tin tubes for toothpaste okayed for Red Cross

Toothpaste may be packed in tin tubes for the Red Cross free of quota restrictions under an April 23 amendment to M-115.

May apply to continue paying premiums for quality syrups and molasses

Packers of syrups and molasses who previously paid premiums over existing market prices for certain items among these commodities because of special quality or flavor may apply for permission to continue paying these premiums. OPA amendment 4 to MPR 291.

Soap makers can buy back oils sold under first freeze

Soap and glycerin producers who sold coconut or other lauric acid oils to the government under the first freeze can now buy back like amounts of such oils, according to FDA's Fats and Oils Branch.

Employee vacations should be staggered and confined to two months

ODT has asked companies to begin and end employees' vacations in the middle of the week and to concentrate them all during July and August.

Protest ruling requiring disclosure of quantitative formula

A conference has been suggested by the F. E. M. A. with the Alcohol Tax Unit in Washington to protest against its ruling requiring the disclosure of the quantitative formula of flavoring extracts in filing a claim for drawback of the alcohol tax. A reconsideration of the ruling has been requested.

Three additions to list of fine chemicals allocated

Ascorbic acid, normal butyl alcohol and methyl ethyl ketone were added April 14 to the list of fine chemicals recently allocated.

WPB recommends ceramic closures for cosmetic and food products

Following a study the Clay Products Section of WPB recommends ceramic closures for cosmetic and food products packed in jars.

Fixing prices when ingredient prices of new formula are higher

The problem of establishing prices for beverage mixes, soup mixes and dessert preparations where a changed formula involves higher ingredient costs is covered by amendment 137 to paragraph a of OPA regulation 1499.73.

Soap makers working to secure needed fatty acids by organized effort

The use of whole linseed oil until fatty acids are available from new crop oil sometime during the fall has been refused by the Food Distribution Administration. The Assn. of American Soap & Glycerine Producers has asked the Soap & Glycerine Div. of WPB to give immediate relief to potash soap makers by telling them how fatty acids may be secured or else acceding to their request. Constructive steps will be submitted to all government agencies concerned.

New steel drums available only on special authorization

Authorization to purchase new steel drums or parts should be made on form PD-835 instead of by letter according to Conservation Order M-255 of WPB. This form should be addressed to Containers Div., WPB, Washington, D. C. Ref. M-255.

Price ceilings on vanillin, coumarin, citric acid, etc.

The 12 fine chemicals essential to the production of medicine, confectionery, tobacco products, carbonated beverages, cosmetics, soaps and flavoring extracts which were placed under specific dollars and cents ceilings March 29 by OPA are: saccharin, caffeine, anhydrous caffeine, citrated caffeine, theobromine, vanillin, ethyl vanillin, coumarin, salicylic and acetyl-salicylic acids, ascorbic acid and citric acid. A substantial reduction of jobbers' prices for large quantity sales is effected. MPR 353. Jobbers' prices were found to be three or four times the producers' prices on some items. Maximum price for eugenol vanillin reflects a differential of 25 cents per lb. above the prices for lignin and guaiacol vanillin.

Glass containers standardized for commercial canning

Standardized and simplified glass containers have been prescribed by WPB for the commercial packaging of 21 additional food products. About 90 standard glass containers are provided—a reduction of several thousand designs—and many sizes, especially small ones, are eliminated.

Advisory committees for water soluble gums and toilet brushes appointed

WPB has appointed Wells Martin, government officer, and A. N. Cross, G. J. Desmond, C. J. A. Fitzsimmons, A. D. Isbetcher, R. Kaiser, Mortese Khosrovschahi, Ellis Meer, Henry E. Price, Charles F. Walden, Roy L. Zeno members of the water soluble gums industry advisory committee. A shaving brush manufacturers' advisory committee with P. H. Thayer, government officer, a toilet brush manufacturers' advisory committee with the same government officer, and natural resins industry advisory committee, with Wells Martin, as government officer, have also been appointed.

Relief from hardship caused by Robinson-Patman act in pricing

Manufacturers who have been found by the Federal Trade Commission or a court to have discriminated illegally in prices between different purchasers may apply for adjustment of their

maximum prices under Supplementary Order 41 of OPA if hardship would be caused under the Robinson-Patman act.

Use of closures for foods and drugs 100% of use during 1942 base period

The use of closures for glass containers for foods and drugs is extended to 100 per cent of use during the base period of 1942. WPB Conservation Order M-104, amendment 1.

Inventory of ration goods limited to three times March sales

Retail grocery stores may keep inventories of rationed types of processed goods with a ration point value equal to three times the sales in March.

Wage and salary adjustments expedited by new ruling

Regional wage stabilization directors have been empowered by NWLB to make short cuts in procedure in handling voluntary requests by employers for increased wages or salaries to lighten the burden of small employers and to provide promptly needed upward wage adjustments to eliminate substandards of living. Complicated statistical wage analyses have been omitted.

Transition from toothpaste to tooth powder not encouraged

Use of adequate substitutes for glycerin in making toothpaste was considered at the first meeting of the Dentifrice Industry Advisory Committee, April 24. Propylene glycol, corn syrup and some supplies of invert sugar, the committee was told might be available. Due to a shortage of mixing equipment and containers the transition from toothpaste to tooth powder was not advised.

Time extended for excess profits tax relief claims

Time for filing applications for relief under Code sec. 722 to Sept. 15, 1943, for the taxable years beginning after Dec. 31, 1939, and before Jan. 1, 1942, has been extended by H. J. Resolution 100.

War Manpower Commission defines essential activities in allied trades

Among the activities regarded as essential are the following, given in an order by Paul McNutt, chairman of the War Manpower Commission, April 18: production of chemicals and essential derivatives—glycerine, rosin, oils, acids and alcohols; and animal and vegetable oils, coal tar products, caustics and other sodas, alcohols, drugs and medicines, insecticides and related chemical compounds and tallow. In addition the duction of materials for packing and

shipping and health and welfare services is warranted essential. Any employer engaged in an essential activity may hire for work in such activity any new employees who for the preceding 30 days were not engaged in an essential industry.

BEW seal on export licenses no longer required

It is no longer necessary to impress the official seal of the Bureau of Economic Warfare on export licenses. Licenses with the signature of an authorized licensing officer are valid.

Dentifrice industry advisory committee holds first meeting

The Dentifrice Industry Advisory Committee held its first meeting April 21. Members are F. F. Berg, E. R. Squibb & Sons; W. M. Bristol, Jr., Bristol-Myers Co.; H. F. Brownell of McKesson & Robbins; J. W. Kane, Iodent Co.; J. Y. Lund, Lambert Co.; Howard S. Lyon, Comfort Mfg. Co.; James Hill, Jr., Sterling Drug Co.; William Webster, W. A. Webster Co.; and Henry F. Woulfe, Pepsodent Co.

Cannot claim coal tar hair coloring is safe and harmless

M. T. Boomer, trading as Boomer's Mail Order Service, Portsmouth, Va., has stipulated with the Federal Trade Commission to cease representing that Blackstone Hair Coloring restores hair to natural color and that it is safe and harmless. The product is a coal tar hair dye.

OPA not sure of authority to institute grade labeling

OPA Administrator Prentiss Brown admitted to a house committee April 14 that he was not sure whether OPA has the legal authority to institute its recent order for grade labeling of canned goods. He asked Congress to make clear its "basic intent."

Four South American republics ban U. S. soaps and cosmetics

Soap and toilet preparations will not receive import recommendations from Bolivia, Chile, Colombia and Venezuela, except in unusual cases, under the "Decentralization Plan."

Procter & Gamble Co. answers FTC complaint on claims for Teel

Procter & Gamble Co. has answered a complaint by the Federal Trade Commission charging misrepresentation of its dentifrice Teel and unfair disparagement of tooth powder and tooth paste sold by competitors. The company maintains that all of its statements are based on scientific research.

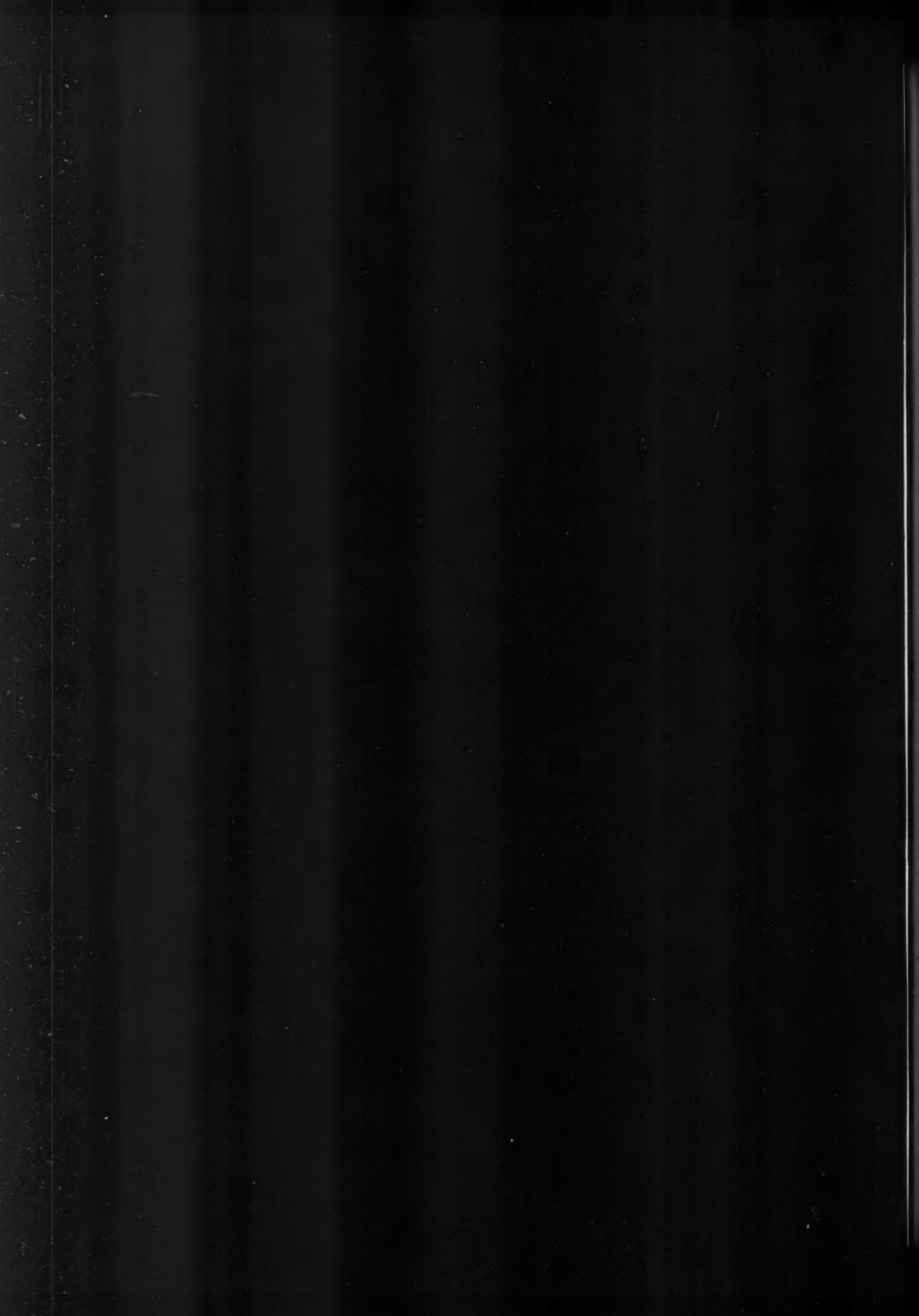
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U.S.I. CHEMICAL NEWS

May ★ A Monthly Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1943

Revised Data on Solox Properties Issued by U.S.I.

New Folder Lists Applications Of General-Purpose Solvent

Revised information on the specifications for Solox, the popular general-purpose solvent, has been prepared by U.S.I.

The authorized composition of Solox now calls for the addition of the following to every 100 gallons of S.D. Alcohol No. 1:

Denaturing Grade Methanol.....	2.0 gals.
Ethyl Acetate	1.0 gal.
Aviation Gasoline.....	1.0 gal.

190-proof S.D. Alcohol No. 1 is used in the preparation of the Regular grade of Solox, and 200-proof for the Anhydrous grade.

Properties are as follows:

	Regu- lar	Anhy- drous
Specific Gravity (at 60°/60° F.).....	0.8158	0.7962
Color	Water White	Water White
Flash Point (approx)	71° F.	71° F.
Coefficient of Ex- pansion (per 1° F.).....	0.0006	0.0006
Weight, Lbs. per Gallon (at 60° F.).....	6.790	6.630

Because of its unusual solvent powers and its mild, non-residual odor, Solox has found extensive use in a variety of industrial applications. A revised folder, now in preparation, lists many of the most important applications in fields ranging from lacquer formulation to fuel oil conditioning. Copies of this folder may be obtained by writing to U.S.I.

New Method Determines Salts in Crude Oils

NEW YORK, N. Y. — Extensive tests conducted in five laboratories of a large company with headquarters here to determine the most accurate and reproducible method of determining the salt contents of crude oils concomitant with reasonable speed and ease of manipulation have led to a new method, employing hydrochloric acid reflux apparatus.

When the separation of layers after heat application is slow, or an emulsion forms at the interface, the addition of about 5 ml. of butanol and the judicious application of heat is claimed to effect sharp separation. Butanol has broken all emulsions encountered to date.

Carbon Dioxide Useful Against Electrical Fires

The snow and gas discharged from carbon dioxide extinguishers of the first aid type are non-conductive even in the presence of voltages up to 100,000 volts alternating current so long as the extinguisher horns retain their original high dielectric qualities. These facts are the result of an investigation made by engineers of Underwriters' Laboratories, Inc. to determine the electrical conductivity of such extinguishers when fighting fires in or adjacent to high-voltage electrical equipment.

Calcium Separated From Strontium by Use of Acetone

Calcium can be separated from strontium with fairly good results through the use of acetone as a solvent, according to a recent claim. After the two materials have been evaporated to dryness in a nitric acid solution and further dried at 170°, the calcium nitrate is extracted with acetone, in which it is very soluble, then evaporated to dryness and weighed. Strontium nitrate, only slightly soluble in acetone, remains as a residue and can be weighed separately.

Research Workers Uncover New Fields for Starch Esters

PRINCETON, N. J. — A study conducted here reveals that starch esters have potentialities for use in the coating, sizing, and adhesive industries; in the preparation of aqueous emulsions or suspensions of high polymers; and in soft rubberlike plastics.

When using such esters to form either plastics or coatings, dibutyl phthalate is recommended as a plasticizer. For example, it is claimed that a soft plastic with relatively high tack can be made with starch butyrate containing 25% dibutyl phthalate. In coatings, dibutyl phthalate minimizes checking.

Iodine Compounds of Steroids Produced by New Method

BLOOMFIELD, N. J. — A new method has been patented and assigned to a company here for the production of iodine compounds of steroids. The iodo compounds obtained are expected to find application for pharmaceutical use as therapeutic agents and also as intermediate products.

According to the invention, the hydroxy steroids are first converted into esters of true organic sulfonic acids. These are then treated with iodides, preferably in organic solvents such as acetone, at an elevated temperature whereby the corresponding steroid iodides and alkyl or aryl sulfonic acid salts are produced.

Quicker Drying Time Is Claimed for Oils Made by New Method

Better Properties Obtained by Rearrangement of Molecules

What are described as entirely new types of drying oils have been produced from soybean and linseed oils by a molecular rearrangement which introduces conjugated double bonds in place of isolated double bonds in the molecule. Superior drying and bodying properties are among the advantages claimed for these oils.

The soybean oil product is described as drying in half the time required by high quality bodied linseed oil and as gelling under heat tests in a fraction of the time required by the latter. Baking times are said to be equally short and the hardness of the dried films as good as that of dehydrated castor oil. It is reported that there is none of the tackiness of ordinary soybean oil films.

Excellent Color Retention

The color retention of these films, both in the light and in the dark, is described as outstanding, while cooking of varnishes requires less time than corresponding linseed oil varnishes. When dried without adding driers, frosting appears after one or two days.

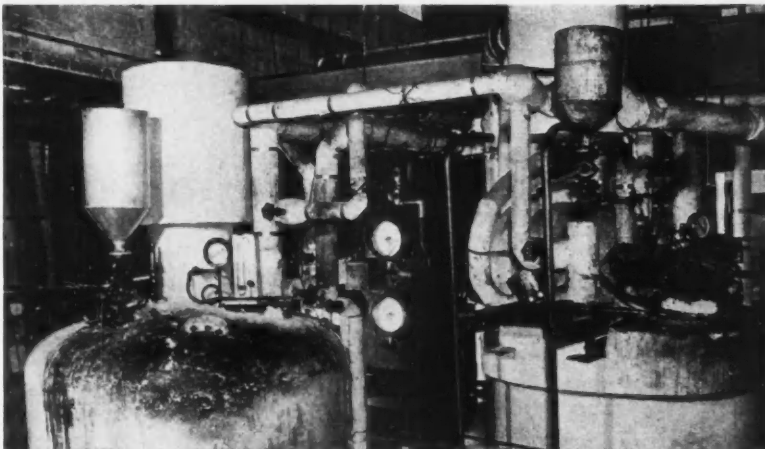
The average constants of conjugated soybean oil are as follows:

Viscosity	Z-3 or Z
Acid Value	5.9
Wijs Iodine Value (400% excess)	97.1
Total Iodine Value (Woburn Method)	128.3
Difference	31.2
Diene Value (Ellis-Jones Method)	17.4
Browne Heat (600° C.)	20 minutes
Specific Gravity (25° C.)	0.9427

Tung Oil Substitute

As the cooking of conjugated linseed oil with resins proceeds very fast, it is expected to offer new possibilities in the problem of replacing tung oil. In producing this oil, the greater part of linoleic and linolenic acid occurring in linseed oil is changed into the isomeric acids containing conjugated double

(Continued on next page)



Vacuum chambers at the Woburn Degreasing Company of N. J., into which drying oils are pumped after pre-heating to change the molecular structure from isolated to conjugated double bonds.

Simple Method Devised to Extract Resin from Shellac

A new method for preparing pure resin from shellac was described recently, which was said to yield about 98% of the total hard resin present in the sample of shellac used.

Two litres of ethyl acetate are added to one pound of finely powdered lac and two litres of benzene added after about five minutes. The whole mass is occasionally stirred for an hour, then the admixed liquid is filtered out by pressing through a cloth or canvas bag. The swelled residue is again treated with a mixture of one litre of ethyl acetate and one litre of benzene to free the mechanically held solvent and the soft resin along with it. The whole is again filtered and pressed in a canvas bag after ten to fifteen minutes and the residue dried in a vacuum oven at 60 to 65°. Finally, the dried mass is melted under water and drawn into fibers.

Soap Deterioration Reduced Through the Use of Acetone

PACKANACK LAKE, N. J.—The addition to a soap composition of a small quantity of a product obtainable by the reaction of an aliphatic ketone compound, such as acetone, with ammonium thiocyanate prevents or greatly reduces deterioration and oxidation of the soap, it is claimed in a patent granted to an inventor here.

In tests the reaction product was mixed in the proportion of .1% with a pure white toilet soap stock containing .07% free sodium hydroxide and 12% moisture. It is said that the antioxidant is neutral in reaction and does not interfere with the estimation of the proper end point of the reaction in the manufacture of the soap.

New Procedure for Making Smoke Without Combustion

LOS ANGELES, Calif.—A new method for making smoke without combustion for use in screening, overcoming riotous crowds, and photography is described in a patent recently awarded to an inventor of this city. The smoke is said to be harmless and can be regulated in density.

In forming the smoke, cyclohexylamine and a volatile, normally liquid organic acid, such as acetic acid, are brought into contact with each other in the presence of atmosphere with

Obtains Higher Resistance In Hectograph Blankets

CHICAGO, Ill.—By incorporating a minor proportion of a glycol solvent in the composition, an inventor here claims that a hectograph blanket can be produced without "burning" that has exceptional heat and humidity resistance and high copy strength.

The following composition is one of several suggested:

	Per cent
Gelatin, bloom strength 220.....	7
Water.....	10
Phthalic glycerin resin.....	1
Glycerin.....	72
Ethylene glycol.....	93 1/4
Formaldehyde (40%).....	1/4

New Drying Oils

(Continued from preceding page)

bonds. It is available in viscosities ranging from Z up. Tests show striking differences in gelation and drying times between the natural, bodied oil and its conjugated isomer which suggest its advantages for air-drying or baking finishes.

The greater activity of the conjugated double bonds permits cooking this oil with slow resins and gums which are usually not used with linseed oil alone. Frosting is produced when the oil is dried without metals. On baking this oil without driers, it sets and dries faster than either linseed oil or dehydrated castor oil but somewhat slower than oiticica or tung oil. The hardness of the baked film is somewhat greater than linseed oil.

Conjugated Fatty Acids

Another important development from the same laboratories is conjugated fatty acids, isomerized products distinguished from their natural counterparts by the presence of a substantial proportion of conjugated double bonds which are formed by a "shifting" process from the isolated double bonds of linoleic and linolenic acids. Viscosity can be controlled according to the amount of polymerization taking place during isomerization.

Foremost among the property changes wrought by this molecular rearrangement is said to be a greatly increased speed of polymerization. Others include light color and good color retention at elevated temperatures.

either one, or both, in vaporous form. In order to dilute and facilitate evaporation of the amine, ethyl alcohol is added. The weight of the smoke may be varied by adding a volatile liquid of low boiling point such as acetone.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

An alkali cleaner and de-oxidizer for aluminum, copper, nickel and galvanized metal is described as a free-flowing powder form which is readily soluble in water. (No. 690)

U S I

A vitreous enamel frit is offered which is described as being luminous, phosphorescent and fluorescent. Suggested uses include war purposes, lamp shades, and license plates. (No. 691)

U S I

A siphon for transferring carboxylic acids or other dangerous liquids is announced, which is said to eliminate the possibility of carboys bursting, since the pumping action is contained within the siphon, thus creating no pressure in the carboy. (No. 692)

U S I

A rotary clarification filter has been put on the market which is claimed to incorporate an unusually sturdier leaf design. This leaf is described as producing a uniform tautness of screen, giving longer screen life, and eliminating the customary clamping rings and bolts. (No. 693)

U S I

A special kettle has been designed for mixing or processing viscous materials, creams or pastes which must be heated and which have a tendency to settle to the sides of a processing vessel. A full steam or hot water jacket surrounds the kettle for heating the contents, it is said. (No. 694)

U S I

Special cholesterol and sterol products have been developed which are said to be effective stabilizers, emulsifiers, and dispersing agents for such products as drugs, cosmetics, textiles, dyes, and inks. They are described as pale, odorless, semi-solid, non-volatile oils which will not thicken or dry out. Complete solubility in animal, vegetable and mineral oils and ready dispersion in soapy water is claimed. (No. 695)

U S I

A finish coat in color for masonry has been produced which is claimed not to require priming or an undercoat. The maker says that one coat penetrates, waterproofs, preserves and beautifies masonry whether inside or out. (No. 696)

U S I

A floor cleaning compound is offered which is said to be so fire-resistant that it will not burn when the flame of a blow torch is played upon it nor as the result of spontaneous combustion. It is further described as highly absorbent of oils and greases. (No. 697)

U S I

A plastic containing siloxes has been developed which is said to combine the advantages of organic and inorganic compounds and which can be used as a solid or a liquid. The solid form has a melting point close to 500° F., it is claimed, while the liquid remains stable in consistency under temperature extremes. Properties can be altered by changing the organic molecules. (No. 698)

U S I

An adhesive is announced for sealing protective paper to plastic plane parts which is said to offer the following advantages over crude rubber adhesive: better resistance to sunlight with no "cracking-off" from the plastic, slower aging and greater uniformity of quality. (No. 699)

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Solox Proprietary Solvent
Solox D-1 De-icing Fluid

ANSOLS

Ansol M
Ansol PR

ACETIC ESTERS

Amyl Acetate
Butyl Acetate
Ethyl Acetate

OXALIC ESTERS

Butyl Oxalate
Ethyl Oxalate

PHTHALIC ESTERS

Amyl Phthalate
Butyl Phthalate
Ethyl Phthalate

OTHER ESTERS

Diethyl Carbonate
Ethyl Chloroformate
Ethyl Formate

INTERMEDIATES

Acetoacetanilide
Acetoacet-ortho-aniside
Acetoacet-ortho-chloranilide
Acetoacet-ortho-toluidide
Acetoacet-para-chloranilide
Ethyl Acetoacetate
Ethyl Benzoylacetate
Ethyl Sodium Oxalacetate
®Registered Trade Mark

ETHERS

Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS

Acetone
Collodions
Curbay B-G
Curbay Binders
Curbay X (Powder)
Ethylene
Ethylene Glycol
Indalone
Nitrocellulose Solutions
Potash, Agricultural
Urethan
Vacatone

Here and There Among Our Friends

▶ James L. Rodgers, Jr., has been elected a vice-president of the Libbey-Owens-Ford Glass Co., Toledo, Ohio, which recently acquired all of the stock of the Plaskon Co., of which Mr. Rodgers was president. The latter company will be operated as a division of the glass company and will be in charge of Mr. Rodgers.

▶ Willard H. Dow, president of the Dow Chemical Co., Midland, Mich., has been awarded the Charles Frederick Chandler Medal of Columbia University for the achievements of the Dow Chemical Co. in the production of bromine and magnesium from sea water and for the production of synthetic plastics and synthetic rubber. These were rated among the most spectacular and valuable achievements of modern times.

▶ Justin W. Dart, former general manager of the Walgreen drug stores, Chicago, has been elected president of United Drug, Inc., succeeding Joseph A. Galvin, who has become chairman of the board.

▶ Robert Kramer, sales manager of Evans Chemetics, New York, N. Y., is now able to make another deduction on his federal and state income taxes, because of the arrival of a third daughter, Lucile Katherine Kramer, on March 16. Mr. Kramer has one son.

▶ William N. Bristol, Jr., vice-president, Bristol-Myers Co., Hillside, N. J., personally tendered a check of one million dollars in payment for war bonds purchased by the company exclusive of the purchases by employees. This purchase alone practically doubled Hillside's quota in the second war loan drive.

▶ Dr. Ernest Guenther, chief research chemist of Fritzsche Brothers, Inc., was one of the principal speakers at the recent annual convention of the National Farm Chemurgic Council held in Chicago. He discussed essential oil production throughout the world in relation to conditions as they exist today in this war-restricted field. He also showed a number of reels of colored motion pictures taken on his various trips to foreign and American centers of essential oil production. From Chicago, Dr. Guenther went to Washington, D. C., where he was scheduled to be the guest speaker at a meeting of the exclusive Cosmos Club, whose membership is limited to persons who have done meritorious or original work in science,

literature or the fine arts, or who are recognized as distinguished in a learned profession, or in public service. There, he presented a talk accompanied by natural color motion pictures on "Essential Oil Production in the Far East."

▶ Jamil M. Baroodi, who has been associated with the perfumery industry in the United States for the last four years, is now lecturing in the graduate school of Princeton University on the Arabic language and conducting classes in area studies of the Near East, especially the Arabic world. Mr. Baroodi comes from a long line of perfumers in Lebanon Territory and is an alumnus of Oxford University, England.

▶ Wallace Bush, of Ungerer & Co., New York, N. Y., became a grandfather recently when a son was born to his oldest son, William Wallace Bush, vice-president of the Lloyd Engineering Co., Belleville, N. J. Robert, the second son of Wallace Bush, is in the officers' training school at Fort Washington, Md., and his youngest son, Donald, is an acting corporal in the tank corps at Camp Bowie, Texas.

▶ Dr. Walter Savage Landis is to be presented with the gold medal of the American Institute of Chemists at the annual meeting this month. The medal is awarded annually for outstanding service to the science of chemistry and will be given to Dr. Landis for his contributions to chemical engineering and development work largely in the field of nitrogen derivatives.

▶ Dr. Georges Acuna, chemical and industrial engineer in the essential oil and allied industries for more than 25 years, is now associated with S. B. Penick & Co., New York, N. Y., as perfumer chemist.

▶ Irving Edgar Chase has been appointed assistant to the export manager of Magnus, Mabee & Reynard, Inc., New York, N. Y. Mr. Chase was formerly associated with W. R. Grace & Co. in its New York and San Francisco offices, confining his export efforts to Latin America and Oriental markets.

▶ Mrs. Leonard P. Reaume, Detroit, Mich., who makes and distributes the Renee Lacoste line of perfumes, toilet waters and bath oils, believes that the present is the most opportune time to introduce small packages of perfumes. She recently offered a purse size dram

bottle of perfume to retail at \$2. To tie in with the war effort it is labeled the "V-for-Victory" line. Incidentally, Mrs. Reaume will celebrate her first wedding anniversary May 30.

▶ Lieut. William S. Fairhurst, son-in-law of Louis Zollinger, president of Tombarel Products Corp., New York, N. Y., who is in the chemical warfare service, has returned to his post following a furlough spent at his home and in visiting old friends in the trade.

▶ Marcel Gunder has joined the metropolitan sales staff of Standard Synthetics, Inc., New York, N. Y., and will call on the perfume and confectionery trade.

▶ Anthony J. Simone, who has been associated for 12 years with Compagnie Parento, Inc., Croton-on-Hudson, N. Y., has recently entered the army. At a farewell party he was presented with an army wrist watch by the company and several gifts from the employees.

▶ Lieut. Richard Salomon, president of Charles of the Ritz, New York, N. Y., is receiving congratulations on the birth of a son, Richard Edward Salomon.

▶ Daniel Brandenstein, who has been associated with a number of supply houses in the cosmetic industry for many years, has gone into business for himself as a manufacturer's representative under the name of Brandwell Sales at 40 East 19th St., New York, N. Y. At present plastic products are being handled, but later other lines will be added.

▶ Henry Goldberg, a member of the honorary chemical society Phi Lambda Upsilon, has joined the Chicago branch of Florasynth Laboratories, Inc., as research chemist. He will devote much of his time to the study of technical problems relating to customers' production requirements in the central and mid-western states. Beset with uncertainties in materials and production, manufacturers in this territory, as in other territories served by the company, are now enabled to avail themselves of first hand expert discussion of their requirements and technical problems.

▶ Albert A. Katz is the new general sales manager of Revlon Products Corp., succeeding Martin Revson, who enlisted in the armed forces and was inducted April 21. Mr. Katz, who has been with Revlon since the company was incorporated in 1932, became sales manager of the beauty salon division in 1940. He is succeeded in that position by Jack Price, field sales supervisor.

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Our Washington Correspondent Reports to You

by ARNOLD KRUCKMAN

Standardization of paper containers on voluntary basis; government aid

The National Bureau of Standards, part of the Department of Commerce, has taken over the problem of simplifying and standardizing paper containers used by the cosmetic, perfumery and flavoring industries. William E. Braithwaite, chief of Section 3, of the container standards section, has sent the details to many members of the industry. They have been asked to give the specifications study, and after proper consideration to register their approval, disapproval, or suggestions, with Mr. Braithwaite at the National Bureau of Standards in Washington, D. C.

It is emphasized that whatever you do you do purely on a voluntary basis. There is no obligation to accept the specifications and simplifications proposed by the bureau. There is nothing mandatory about its actions. It has the facilities and experts to make a study in the most exhaustive sense, and it has the experience and the background material which enables it to formulate conclusions that usually are accepted by an industry as the best crystallization of its collective ideas and experiences. When the proposals for standards of any nature are submitted to an industry by the bureau the industry in effect voluntarily votes on the proposition. A clear majority in the vote is accepted as the decision of the industry, and the decision is then formally announced and is put into practice as the will of the industry. It then becomes an industry standard with the prestige of the National Bureau of Standards behind it, and jells into an established fact and practice.

Why the Bureau of Standards took up package simplification

Usually, consideration of an industry standard is initiated by some responsible part of the industry. During the war it has become the custom for some of the national war agencies to place simplification and standardization prob-

lems before the National Bureau of Standards. This instance is typical. The cosmetic people apparently were not able to reach a collective conclusion. Deputy Chief Willard of the appropriate WPB branch obviously had the confidence of the industry in attempting to secure a voluntary agreement on standards and types of paper containers, but the process was slow, and the WPB did not have the machinery to bring the whole question to a test. It was thus the National Bureau of Standards finally came into the picture.

Changes in paper containers may alter trade practice

The basis of the simplification of standards in this instance rests upon the need to save manpower as well as paper. At present, as we know, the industry uses an extraordinary variety of paper containers, and these are outstanding for their unique shapes, sizes, types, and general all-round singularity. Mr. Braithwaite and his associates found that the containers not only were wasteful because they require special handling in the making, but they wasted paper by reason of the excess or surplus space in many containers. It is generally assumed here that the changes proposed will profoundly alter the practices of the industry for many years to come.

Larger aims for a planned world economy affect your business

There is a hope abroad, we often hear here from our foreign friends, that the U. S. will underwrite a New Deal program for the world, financed chiefly by us, and managed jointly by the British and the Americans. They talk here about an international RFC, a global Credit Commodity Corporation, a planetary Agricultural Adjustment Administration. If all this sounds grandiose and speculative, bear in mind it is in the international political mind, and it has a very definite bearing on your current business and your contempo-

rary life. It isn't something you can afford to brush aside indifferently. They tell the workers they must accept less wages and simpler standards of living in order to lift the standards of life in other parts of the world where the underprivileged need some of our abundance. Bear in mind, also, a tightly concentrated national economy, according to a plan, has been agitated by the Assistant Secretary of War, and others, for the army chiefly as a logical part of the program essential to organize the nation to wage total war, which is war by means of plan and organization absolutely new.

Three types of cosmetic boxes basis of simplification

The proposal for the simplified new standards for paper containers is in process of typing while this is being written. The general idea is to create three types of boxes. There will be boxes to hold powder, face powder and dusting powder; set boxes, to hold cosmetic and toilet articles that logically go together and are sold in sets of two or more products; and boxes to hold perfume, toilet waters, colognes, and similar products. Mr. Braithwaite discusses the boxes as folding and set-up boxes. They will have a maximum thickness, and they are to be square in order to save the work involved in rounded boxes or boxes with rounded corners or with oval or odd shapes. All individual unique packaging naturally will be eliminated. And there are to be no boxes with a surplus space of more than an inch in each dimension. There is a WPB order which broadly covers the subject of folding and set-up boxes, Limitation Order L-239. If you are specifically interested in the details from the technical aspect you should secure a copy of L-239 at your nearest WPB field office. The order prohibits use of metal in the paper boxes as bails, handles, clips, fasteners; places restriction on the pulp content; stops the use of dummy boxes for display purposes; and gives specific regulations for the manufacture of food boxes.

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the disagreeable odor of this other-
wise useful product that it will be
admirably adapted to your needs.**

**We have developed several of these
highly serviceable masking agents.
Write us on your firm's letterhead
for further information and samples.**

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beverage and tobacco boxes, retail boxes, and boxes for sporting goods, laundry, wearing apparel, and paper products. Cosmetics definitely were not specifically mentioned.

Labels for soft drinks may be simplified

In a discussion by the members of the Non-Alcoholic Beverage Industry Advisory Committee it was proposed that paperboard cartons to carry beverages be completely eliminated. Many labels usually placed on different containers also may be eliminated, or drastically simplified.

Metal closures may be more plentiful

Closures may temporarily be easier because lighter sheets—terneplate and blackplate—are more abundant for civilian needs. This should not be interpreted to mean that there will be a sudden and large supply of metal closures. It is a hope rather than a promise. WPB officials apparently are sold on the usefulness of ceramics for closures as well as for some forms of containers for cosmetics. There appears to be abundant material, and the material can be manufactured into the product required, and the cost seems reasonable; but it is extremely difficult to obtain the equipment which is necessary to make the alterations in the machinery to turn out closures. Plastics are so scarce that it is the opinion here the material will not be available for closures. In Canada apparently they are meeting the problem by salvaging terneplate from tinmill blackplate, and from blacksheets known as waste waste, cobbles, or from scrap. Apparently the general idea of classifying paper containers in three groups comes from Canada. In April the Administrator of Pharmaceuticals issued an order defining three bulk sizes and three retail sizes for medicinal and toilet goods.

Muddled situation and divided authority may cause trouble

The situation in the Food Administration, even under the new director, Davis, is so muddled that relatively few officials in the Food Administration know the difference between fats and oils and essential oils. Most of them do not even know that the essential oils, almost to the last drop, have passed under the governance of the Food Administration. Apparently the various purposes involved in the use of essential oils determines who functions. Dr. A. L. Kalish still determines what shall be bought; and the use of oils

for flavoring or similar purposes heads up in entirely another section. While the oils to all intents and purposes completely have passed under control of the Food Administration and the Department of Agriculture, there does not seem to be any person or section which has power to act in relation to essential oils in their uses for cosmetics. The peculiar condition obviously is fraught with potential trouble for the industry. A problem that must be determined might arise any time. WPB no longer deems itself the authority. Apparently no one in the Food Administration has given the subject much thought, or has done anything to be prepared to function if the occasion arises. There are numerous situations like this under the war government. Logic would seem to indicate that the industry should do something to awaken some one in government to be its prophet.

Government plans to get needed fats and oils

Department of Agriculture in April announced, under Food Distribution Order 46, that importers of coconut, babassu and palm kernel oils, or materials from which the oils are produced, must set aside 25 per cent of their imports to be used for the war at government direction. Government is going far afield for its fats and oils. It plans to get oil from 14,000,000 acres soybeans; 6,000,000 acres peanuts; 6,000,000 acres flaxseed; 23,000,000 acres cotton; these are expected to produce 6,000,000,000 pounds vegetable oils. More than 400,000,000 pounds of oil are expected from corn and olives, tung nuts and other vegetables.

Gum tragacanth to be imported from Iran

Gum is bracketed here with oils and fats. We have been warned you should study the potentialities of Congo gum copal. The experts here think it will be the only gum that may be imported in the immediate future, and that it will be the only gum civilians may use. Industry advisory committees met here recently which are concerned with natural resins and with water soluble gums. The State Department has concluded a trade treaty with Persia (Iran) by whose terms it may bring into the United States free of duty gum tragacanth of which we bought in 1939 \$1,264,000 worth. Natural gums and resins also are admitted free. Apparently any product of aromatic shrubs or plants, which would include essential oils, will be admitted free. All spices and spice seeds are duty free.

Allied nations to share supplies of spices

Scarcity of cinnamon, mace, nutmeg and pimento, has impelled the allied nations to share supplies. Distribution will be made between Canada, United States, Russia, the United Kingdom, and other Eastern Hemisphere countries. The supply comes almost exclusively from British Empire sources. The cinnamon will come from Ceylon and the British West Indies. Government reports the imports of allspice from the British West Indies are more plentiful. Black pepper is still scarce and must be conserved. However, during the pending canning season black and white pepper quotas have been raised from 45 to 60 per cent; cinnamon, 30 to 40 per cent; and allspice from 100 to 115 per cent. The prospective scarcity of spices has caused a group of British capitalists to form a company to promote production in out-islands of Bahamas group. It has agreed to buy from the Bahamas government for ten years all spices grown. The promoters are seeking seeds of sage, thyme, chili-pepper and similar plants.

Alcohol situation affected by inertia and confusion

The inertia and confusion in the Food Administration is related to one problem that puzzles Washington. The administration is in control of one type of sugar which apparently has not been proposed for alcohol production, although alcohol still is regarded as tight. The other sugar comes under WPB. No one blames Administrator Davis for the jumble. The general opinion is that he undertook the job handcuffed by the same lack of specific authority that paralyzed Secretary Wickard. They say the over-all need this year exceeds 510,000,000 gallons, and that next year it will be 610,000,000 gallons.

Cosmetic excise taxes in March over two million dollars

Beverages and Tobacco Division, WPB. John B. Smiley, director, is the last of the groups in WPB, connected with our industries to be transferred to the Food Distribution Administration. . . . Retailers' excise tax on toilet preparations for March totaled \$2,183,931.75. If an essential service, sometimes a barber or a beauty shop, is scarce in an area, OPA has authorized the regional director to establish higher maximum prices for it. . . . The Beekeepers Advisory Committee had its first meeting here recently. Need of sustaining production of beeswax, as well as honey, prompted WPB to promise that the steel needed would be allocated.

Duval

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Uniformity of Beehive Brand Beeswax will keep your product always up to the high standard you set for it. The quality and uniformity never change. It is entirely free from adulterants and imperfections of any kind. And back of every tablet of Beehive Brand Beeswax stands the reputation of the manufacturer.

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SPERMACEIN CERESEIN YELLOW BEESWAX
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NEWS and EVENTS

Toilet Goods Assn. meeting in New York well attended

The Toilet Goods Assn. held its seventh annual meeting at the Hotel Waldorf-Astoria, New York, May 12 and 13. It was strictly a streamlined affair with no entertainment features other than daily luncheons. The attendance broke all records. A report of the meeting will be published in the next issue.

House of Hollywood opens New York branch

The House of Hollywood, Los Angeles, Cal., has opened a branch at 351 West 48 St., New York, N. Y. The company was founded last year by Mrs. Sally Hanson, president of the California Cosmestic Assn. Mrs. Hanson will be in New York until July.

California flavor men meet after third blood donation

Fourteen members of the Flavoring Extracts Manufacturers Assn. of California were awarded the silver badge the last week in April for their third blood donation to the Red Cross in the past thirty weeks. Following the giving of this third donation, they attended a dinner-meeting of their association at Lindey's restaurant, Los Angeles, with Chas. S. Marston, Jr., president, presiding. The principal speakers were L. M. Kerns, chief of the food section of the OPA in southern California, and William Meserole, an executive in his organization. They described the OPA setup, discussing it from both the theoretical and practical angles, and gave some valuable hints to those present which were calculated to save them time in observing the regulations. A forum was held at which many questions were asked and answered. The visiting officials said they wanted to work closely with the association and its members.

An honored guest was Phil Weinrobe, assistant to Manager Bob Felton of the Felton Chemical Co. in Los Angeles, before he was inducted into the army last year. He is a private, first class, and has just been trans-

ferred back to Los Angeles where he is taking a specialist's course. Weinrobe, as the original treasurer of the association, Milton Schoenfield, Field's Seasoning Co., as the original vice-president, and Norman Hernhuter, Joe Lowe Corp., as the original secretary, each were given a neat little silver circular knife for a watch chain, as a token of esteem as former association officers, each one of whom served for three years, retiring at the close of 1942.

Lane Guthrie, vice-president and chairman of the legislative committee, reported on new orders issued by OPA, WPB and other regulatory agencies.

Best dressed business woman of 1942 is head of cosmetic firm

Mrs. Constance Luft Huhn, the energetic president of the George W. Luft Co., Long Island City, N. Y., has been designated by the Fashion Academy as the "best dressed business woman of 1942." Mrs. Huhn is the daughter of the late George W. Luft. The good taste shown by Mrs. Huhn, like that of the Duchess of Windsor, as well as her charm, have long been appreciated by a host of friends and admirers. Despite



Mrs. Huhn named best dressed business woman of 1942 by the Fashion Academy

the cares involved in directing the affairs of the George W. Luft Co., which does a nation-wide business, Mrs. Huhn finds time for social and civic welfare activities.

All-Industry Council formed to coordinate cosmetic association work

Representatives of the National Hairdressers and Cosmetologists Assn., Inc., the Beauty and Barber Supply Institute, Inc., and the National Beauty and Barber Industries Assn. met April 30 in New York to organize an all industry council. The first meeting of the new body known as the All-Industry Council will be held May 17 at the Hotel Seymour, New York, N. Y. The personnel of the committee has not been completed but organization work is well under way.

The immediate reason for the formation of the council was the pressure from various departments in Washington for information as to the normal requirements of the industry, degrees of scarcity of various items, etc. Unless a central clearing house were set up to coordinate this information various associations working independently might easily send in conflicting reports.

Soap and glycerine association moves executive offices

The Association of American Soap & Glycerine Producers, Inc., has moved to new offices at 295 Madison Ave., New York, N. Y. The telephone number is Murray Hill 4-5315.

Synthetic organic chemists to meet June 4 and 5

The Synthetic Organic Chemical Manufacturers Assn. will hold its annual meeting at the Seaview Country Club, Absecon, N. J., June 4 and 5.

California Pharmaceutical Assn. plans two-day conference in June

The California Pharmaceutical Assn. will hold a two day conference at the Burlington Hotel, Los Angeles, June 30 and July 1.

Vanguard of Portland, Ore., expanding flavoring extract business

Vanguard, Inc., Portland, Ore., which heretofore has touched lightly the flavoring extract field, has expanded and is developing its flavoring line.

PLYMOUTH WAXES *For* CREAMS

PLYMOUTH Genuine Spermaceti U.S.P.

This Spermaceti should not be confused with inferior hydrogenated sperm oils which are sometimes offered as Spermaceti. The Plymouth Brand is the finest which can be produced and is produced from Genuine Sperm Oil by the cold pressing method. It is a very white crystalline wax containing no free oil, has a very low Iodine number and is free of any offensive odors.

PLYMOUTH Ozokerites

We offer two grades. One is the highest quality obtainable, 76°-78° C melting point and the other grade lower in price and of lower melting point 66°-68° C. Both are guaranteed 100% Pure Bleached Ozokerites.

PLYMOUTH Sun-bleached White Beeswax U.S.P.

This is guaranteed to be a 100% Pure Beeswax and sun-bleached. It is refined by the centrifugal method which removes all and every trace of foreign matter. We will gladly send samples.

PLYMOUTH White Cirine Wax

A special grade of White Ceresin Wax prepared for the cosmetic trade. Absolutely white and odorless. It has a melting point corresponding to that of Beeswax so that in using it in connection with Beeswax in cream any "lumpiness" is avoided. Its use will also produce a very glossy cream.

PLYMOUTH Paraffin Waxes

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Net earnings of American Home Products increase nine per cent

American Home Products Co. had an increase in net earnings in the quarter ended March 31, 1943, of 9 per cent over the same period last year despite a substantial increase in the tax bill. Alvin G. Brush, chairman, disclosed in the corporation's tentative report for the quarter.

BIMS to hold two golf meetings during summer

The BIMS plan two golf tournaments during the coming summer where facilities for getting to the club are good. The first is at the Wykagyl Country Club, New Rochelle, N. Y., June 23. The second will be held at the Garden City County Club, Garden City, N. Y., on Aug. 24. Further details about both meetings will be sent just prior to the time they are held.

Lilac and muguet perfumes most popular in Los Angeles sale

Despite the war the J. M. Robinson department store in Los Angeles, Cal., turned over its 15 windows to a floralization of Lenthaler perfume recently. The store reported excellent perfume sales for the week, sales being the highest on lilac and muguet.

Drug, Cosmetic and Chemical Credit Men to hold outing June 18

The Drug, Cosmetic & Chemical Credit Men's Ass'n will hold its annual golf, lunch and dinner party at the Plandome Country Club, Plandome, L. I., Friday, June 18. Following the dinner there will be a get-together at the home of Secretary Nat Otte in

Great Neck, L. I. Sales managers and treasurers of the different companies in the group have been invited to attend the outing, which is always a most enjoyable affair.

BIMS of Boston elect M. J. Pete Niles chairman

The BIMS of Boston have elected the following new officers: M. J. Pete Niles, manager of the Boston branch of



Pete Niles

Fritzsche Brothers, Inc., chairman; and Stephen W. Higgins, Ernest Ingham, Frank Langlois, C. M. Roper and Herbert Stephens, executive committee. George E. Esslinger is the new treasurer. The first outing of the season will be at the Commonwealth Country Club, June 24. In keeping with the war effort only two parties are planned instead of the usual number this year. New York BIMS are invited to both affairs.

Steatite talc restrictions removed and new controls set up

Existing restrictions on the use of steatite talc are removed by an amendment to M-239 effective May 1. Consumer inventory restrictions on steatite talc vary according to the kind of talc and its intended use. A two months' inventory for use in talcum powder, cosmetics, insecticides and foot powder is allowed. For talc other than steatite talc a six months' supply is permitted. Consumers will report on Form PD-863 on a quarterly basis.

Canada wages war against soap making in the home

Canadian salvage authorities are waging war on homemade soap. The National War Services salvage division is collecting salvage fats which go to a central soap factory where glycerine is obtained as a by-product.

Contributions of Merck Institute emphasized by scientists

The splendid contributions to the war effort made by the research laboratories of Merck & Co., Inc., New York, N. Y., were stressed by leading scientists at ceremonies commemorating the tenth anniversary of the opening of the Merck Institute for Therapeutic Research, Rahway, N. J., on April 26.

Merchandise, manpower and regulation are chief retailers' troubles

Merchandise, manpower and regulation symbolize 90 per cent of the department store's troubles, according to Morris Thompson, director of the Bureau of Smaller Stores of the NRDA. Most department stores, he said, are resisting the urge to place orders for and accept delivery at any time on any quantity of anything that anyone will sell.

Chemical exposition in Madison Square Garden December 6-11

The bi-annual exposition of chemical industries will be held during the week of December 6 to 11 in Madison Square Garden, New York, N. Y. All exhibition space will be on one huge floor.

Standard Synthetics suffers water damage from serious fire

A serious fire on the floor above the premises occupied by Standard Synthetics, Inc., 119 W. 25 St., New York, N. Y., did considerable damage early in April to its offices, laboratories and warehouse. For about two hours the company had a continual stream of water streaming into the place and stocks of perishable materials packed in cartons such as vanillin, coumarin, heliotropine, etc., suffered considerably. Also labels were washed off bottles containing essential oils and synthetics. The fire department endeavored to protect the stock by spreading tarpaulin water-proof covers over it, but the damage had already been done.

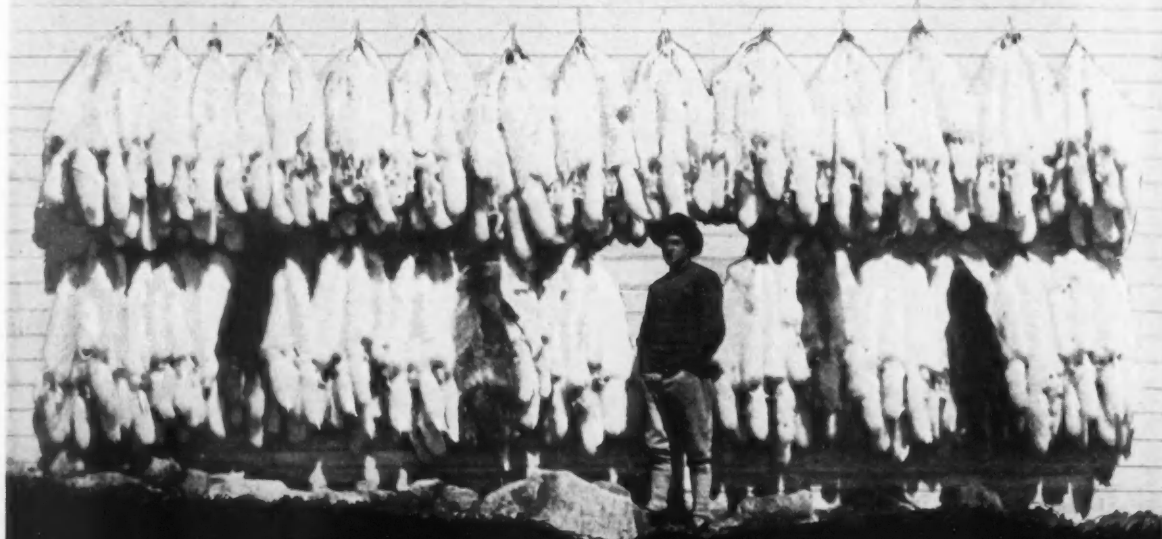
Pixie Flavor Base Co. is new Los Angeles firm

Pixie Flavor Base Co. is the name of the new firm organized by A. G. Hansen, Allen W. Hansen and Albert E. Fabian in Los Angeles, Calif. Offices are located at 2626 West Vernon St.



American Red Cross workers present first ARC award in cosmetic industry to Charles of the Ritz executives. Photo shows representatives of both wars: Robert E. Curran, now head of the cosmetic house, and Aura Woodin, both of whom served abroad in the first war; Rose N. Braunstein and Lieut. Richard Salomon, former president, on active duty in the current one

*You Can't Catch Fur-Bearers by putting salt
on their tails
Professional Trappers use Baits and Lures*



RATINOL is a favorite with those who employ traps and snares for Wild Life. "It contains Natural Animal Extracts."

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EXTERMINATORS and PEST CONTROL FIRMS can take a valuable tip from those who know. Profit from their experience. Use Animal Baits for catching all Rodents.

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SHERWOOD REFINING COMPANY, Inc.

The Refinery of Controlled Specialization

ENGLEWOOD, NEW JERSEY · Refinery: WARREN, PA.

Lynette cosmetics now sold from new and larger quarters

Chemical Center Corp., manufacturer of Lynette cosmetics, is now located in new and larger quarters at 840 Broadway, New York, N. Y. The telephone number is Gramercy 3-1229.

Chicago Drug & Chemical Assn. elects new officers

At the annual meeting, Joseph P. Sullivan of Grasselli department, E. I. du Pont de Nemours & Co., was elected president of the Chicago Drug & Chemical Assn. Other officers elected were: Vice-President, F. Dean Hildebrandt, Prior Chemical Corp.; treasurer, Edgar E. Brand, L. Sonneborn Sons, Inc.; secretary, Gerald F. Pauley, Monsanto Chemical Co.

Accelerated new term at Philadelphia College of Pharmacy starts June 28

A new term will be started June 28 by the Philadelphia College of Pharmacy and Science. Students who enter at that time will continue on an accelerated plan for two years and nine months so they may qualify for degrees by April 1946. Classes are conducted through summer and winter without the usual vacation periods.

Alcohol and perfume manufacturers of Puerto Rico elect officers

Feliz Hilera, representing the distillers manufacturing denatured alcohol, has been elected president of the board of directors of the Assn. of Alcohol and Perfume Manufacturers of Puerto Rico. Other members of the board recently elected are: F. T. Sanchez Frasier, Jose Julia, Pedro Fernandez, Rolando Anglada, Edmundo B. Fernandez, Ramon H. Rodriguez, and Vicente Leon, and the latter named secretary.

T. C. Wheaton Co. wins coveted Army-Navy "E" award

T. C. Wheaton Co., Millville, N. J., was presented with the coveted Army-Navy "E" award at special ceremonies at the plant March 27. One of the reasons for the presentation of the award was the important part played by the company in the Red Cross blood bank program, in developing a special type glass and special type bottles to meet the stringent requirements of the blood bank. The T. C. Wheaton Co. has produced much of the glass used in the program.

Prior to the ceremonies a luncheon to the visiting Army and Navy officers was held at a hotel in nearby Bridge-ton. About 30 attended. Following the luncheon the presentation was made

with appropriate ceremonies at the plant of the company. The presentation speech was given by Lieut. Col. H. F. Currie, and the acceptance on behalf of the company and its employees was made by Frank H. Wheaton, president of the company. Following this, Navy pins were presented to the employees. These were accepted by Mark S. Branin on behalf of a committee of employees composed of himself, Miss Dora Radel and Rehoboam Peterson. An appropriately illustrated program of the ceremonies contains letters from Under-Secretary of War Robert Patterson and a reply by Frank H. Wheaton. Data about the company which was established 55 years ago and an honor roll of the many employees of the company in the armed services are also included. The plant was kept in operation until 15 minutes before the ceremonies so as to give visitors an opportunity to inspect the factory.

Another new member added to George Lueders & Co. 25-year club

Miss Ginevra M. Manning qualified as a member of the George Lueders & Co. twenty-five year club on April 15. The occasion was marked by a luncheon in her honor attended by all the other veterans of the twenty-five year club.

F. J. Lueders, president of George Lueders & Co., essential oils and aromatics, New York, presented Miss Manning with a gold wrist watch and the usual club pin commemorating her twenty-five years of service.

Miss Manning was secretary to Edward V. Killeen, formerly president of and still associated with the company. A combination radio and victrola was given to Miss Manning by the employees of the company. She is the thirty-third member of the twenty-five year club.

Manhattan Soap Co. launches biggest sales promotion in its history

Manhattan Soap Co., New York, N. Y., has launched the greatest sales promotion program in its history to boost the popularity of Sweetheart soap. Over 400 newspapers and spot radio are being employed.

DCAT membership increased to 396

Membership in the Drug, Chemical & Allied Trades Section of the New York Board of Trade has increased to 396 with the following new members:

American Home Products Corp., New York, N. Y., Franks Chemical Products Co., Brooklyn, N. Y., M. W. Parsons Imports & Plymouth Organic Labs., New York, N. Y., van Ameringen-Haebler, Inc., New York, N. Y., and Ungerer & Co., New York, N. Y.

Free interchange of research data by American Home Products planners

A planning board to supervise the \$8,000,000 annual advertising budget of the American Home Products Co., Jersey City, N. J., has been announced by Alvin G. Brush, chairman of the board of directors. The planning board is made up of H. W. Roden, Leo Nejelski and W. M. Stedman. One expected result of the organization of the board will be the free interchange of research and media information among the numerous subsidiary companies.

More women manicuring hands at home Fawcett survey discloses

More women manicured their own nails at home in 1942 than in 1941, according to the new Reader Forum Study just issued by Fawcett Women's Group.

According to this study, 68.5% of all women interviewed manicured their own nails at home in 1941, whereas in 1942, the percentage went up to 73.2%.

The study also reveals that a larger percentage of women purchased their nail polish in department stores and drug stores, and fewer purchased it in the syndicate stores in 1942 than during 1941.

Comparisons of brand popularity of leading nail polishes and hand lotions and creams for the two years, as well as other data in this highly competitive field are included in this newly released research.

Milkmaid agrees to state that preparation does not contain milk

Milkmaid, Inc., New York, N. Y., and Lorr Laboratories, Paterson, N. J., have stipulated with the Federal Trade Commission to cease representing that Milkmaid cosmetics will nourish the skin or that the cosmetic designated Milkmaid Emulsion contains milk or cream. It is also agreed that the word Milkmaid will not be used unless in direct conjunction therewith it is stated that the preparation doesn't contain milk.

Eight drug manufacturers join in largest cooperative promotion

One of the largest cooperative promotions ever attempted in the drug field came April 4 when eight sponsors ran a color advertisement pointing out that with thousands of doctors and nurses in the services daily health maintenance is up to the consumer, his druggist and his medicine cabinet. Each manufacturer in side panels illustrates his products which include Bayer aspirin, Nujol mineral oil, Murine, Noxema, Vimms, Phillip's Milk of Magnesia, Mistol and Absorbine Jr.



Lilac Flowers

The fragrance of this beautiful spring time flower endures through generations as one of the irreplaceable and always popular perfumes.



We offer a complete assortment of Lilac perfume bases to meet every need, both as to character and price range.

The following is a partial listing:

- LILAS T. F. 87 For toilet waters and perfumes
- LILAC No. 122 Primarily intended for powders
- LILAC No. 417 Especially prepared for cream lotions and other cosmetics
- LILAC S-929 Designed expressly for soaps, shampoos, etc.

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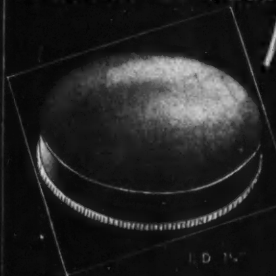
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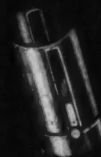
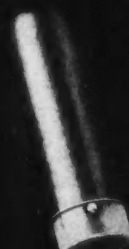
Rouge Box

Mill-edge
Base
Wedge Lock
Closure

De Luxe SWIVEL Lipstick Container



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JUNIOR Push-Up Lipstick Container
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Both JUNIOR and SENIOR feature the new double slot construction, which eliminates any possibility of jamming and provides free action.

EXCLUSIVE DESIGNS TO YOUR ORDER IN ALL COLORS OR COMBINATIONS. DELIVERY 4 to 6 WEEKS.

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PLaza 8-0520

Bill places rigid control on arsenic in insecticides

Legislative developments include a bill introduced in the Senate by Sen. Bailey as S 897 and in the House by Rep. Chapman as HR 2363 to amend the Insecticide Act in order to place a rigid control on the use of arsenic in any compound. HJR 102 would permit any group of retailers to combine to buy from wholesalers or any other suppliers. S 890 would extend the life of patent for the duration of the war if the owners cannot derive benefits during the war. HR 2198 and S 853 would permit civilians to buy from naval stores during the war and for six months thereafter if there are no good private stores in the neighborhood. HJR 95 prohibits the exportation by lend-lease of any food supplies short in America.

Most women haven't noticed changes in cosmetic products due to war

A recent research report on the effects of war in the home, released by *Woman's Home Companion*, brought to light the fact that women had rarely noticed the changes in toilet preparations that have come about since the shortage of supplies.

Of 1,504 women replying to the question, only 442 had noticed any changes; and whatever changes have been apparent are not of sufficient consequence to affect the women's purchases to any noticeable extent; only 7 per cent are buying less than they used to because of them, 89 per cent are buying the same, and 4 per cent are buying more. Of the changes noted, 75 per cent have to do with packaging and only 15 per cent with the product itself.

Principal changes in packaging noticed were: absence of metal containers, plastic containers and caps, more use of glass.

Principal changes noticed in products were: facial tissue grayish in color—not as soft, quality of soap lower, texture of cream less smooth, perfumes not as good, hand cream curdles, nail polish does not wear as well.

The question "What toilet preparations are most important to your personal appearance in wartime?" was answered by 91 per cent of the women, and the replies were broken down into four age groups—under 25, 25-34, 35-44, 45 and over.

Face creams head the list, 67 per cent finding them most important. Face powder, which is second with a total of 52 per cent, is more important to women over 25 than to younger ones. Lipstick was mentioned by 56 per cent in each of the two younger age groups, but the attitude of the two older groups, to whom it is less important, brings

the general average down to 44 per cent for this beauty aid.

The concern of the women for the care of their war-working hands is indicated by the large percentage who mentioned hand lotions (39 per cent.)

Soap's total of 23 per cent, dentifrice's 7 per cent, and deodorant's 17 per cent, seem low in view of their known widespread use. This may indicate that women who answered the question either take such things for granted or were thinking of cosmetics in relation to personal appearance.

Krank's hair oil claims modified by agreement with FTC

Consolidated Royal Chemical Corp., Chicago, Ill., has stipulated with the Federal Trade Commission to cease representing that Krank's Hair Oil will stop dandruff, falling hair and early baldness, and that it will promote the development of a good head of hair.

Obituaries

Dr. H. C. Lovis

Dr. H. C. Lovis, former president of the American Drug Manufacturers Assn. and former chairman of the Drug, Chemical and Allied Trades section of the New York Board of Trade, died April 3 in South Orange, N. J. He was 73 years of age. Dr. Lovis served as president of Seabury & Johnson, now a part of Johnson & Johnson, from 1909 until his retirement in 1933. He joined this firm in 1888 and rose through successive offices to the presidency. Dr. Lovis was a former vice-president of the New York College of Pharmacy

H. Stanley Redgrove

H. Stanley Redgrove, B.Sc., F.I.C., F.R.H.S., distinguished English cosmetic chemist and consultant, London



H. S. Redgrove

correspondent and a frequent contributor of technical articles to the *AMERICAN PERFUMER* and other publications, died suddenly March 13 at his home in Pangbourne, England. He was born in London, February 21, 1887.

A diversity of interests marked both Mr. Redgrove's professional career and his avocations. Educated privately and at Regent Street Polytechnic, he received his B.Sc. at London University in 1908, following which he taught chemistry and mathematics. He became F.C.S. in 1906, A.I.C. 1922, and F.I.C.

1931. He was elected a member of the Society of Public Analysts in 1935.

Mathematics, especially the practical aspects, were of interest to him throughout his life and he lectured and wrote on the subject, two of his books *Experimental Mensuration* and *Practical Commercial Mathematics* presenting novel angles.

In his youth he founded with others the Alchemical Society and edited its journal. Alchemy and metaphysics were topics which stimulated his attention and he was the author of several books on their various phases.

It was through a friend, the late Gilbert A. Foan, that he became concerned with cosmetics and hair dyes, and in 1928 he commenced writing on these subjects for the trade press both in England and on the continent. In 1930 he became the London correspondent for the *AMERICAN PERFUMER*.

With Foan he collaborated on the book *Blonde or Brunette*, later reissued as *Hair Dyes and Hair Dyeing*. Other titles of his which bear on the cosmetic industry include *Scent and All About It*, *Paint, Powder and Patches*, *Cream of Beauty* and *Spices and Condiments*.

He traveled extensively, visiting the perfumery houses of Europe many times. In 1926 he went to Russia as a member of the official education delegation. He visited the United States in 1938, accompanied by Mrs. Redgrove and Miss Evelyn Venables, an associate, who did many drawings for his books.

Turning to the manufacturing end of cosmetics in 1941, he founded the firm, Berkshire Beauty Products, which is to be continued by his widow, Mrs. Ivy M. L. Redgrove. Throughout his cosmetic experience, Mr. Redgrove was a champion of the smaller and less powerful sections of the trade in England and his leadership will be missed during the difficult times which the industry there is experiencing.

One of his hobbies, field botany, resulted in an extensive collection of British wild plants and led to his interest in medicinal herbs and their cultivation in England. Another avocation, philately especially aero-philately, resulted in his latest book *The Air Mails of the British Isles*.

Adolph E. Valley

Adolph E. Valley, who was Cleveland branch manager of Innis, Speiden & Co., died April 10, 1943. Mr. Valley was born October 2, 1903. He entered the employ of Innis, Speiden & Co. as a Cleveland salesman, November 25, 1933, and became manager of the Cleveland branch January 1, 1942. He was well regarded in the trade and his passing will be keenly felt by those who have had association with him.

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Abe Plough signs three million dollar war bonds check

Plough, Inc., Memphis, Tenn., gave impetus to the Second War Loan Drive recently when it purchased \$3,000,000 in U. S. War Bonds, an amount representing nearly one-sixth of the entire Memphis and Shelby County War Bond Quota. The check was signed by Abe Plough. This was the largest single check to date issued for war bonds by any company in the allied trades.

Trade Jottings

Richard Hudnut offers a new shade of lipstick in its Du Barry sequence. It is called Red Violet and is a blue red shade. It comes in a paper container.

Marie Earle currently has an offer for a limited time of a half-ounce jar of essential cream free with every purchase of a \$2 box of face powder. The essential cream is a cleansing and lubricating one.

Frances Denney adds a number of items to its Whirlwind fragrance. Three are bath accessories, body cologne, bubbling over and body sachet. As a means of introducing the Whirlwind odor to new customers, the firm is also offering a specially priced one dram

bottle of the perfume, packaged in book form and designated "The Story of Whirlwind." Other additions to this line include a new shade of over-tone, face powder, rouge and lipstick. The over-tone and face powder are a deep rachel shade and the rouge and lipstick, a deep red.

Helena Rubinstein announces the appointment of Miss Amy Blaisdell as public relations director. Miss Blaisdell formerly was advertising and publicity director for Ogilvie Sisters.

Parfums Charbert announces that the formula for its leg make-up, Gentlemen Prefer Bronze, has been improved during the winter and it is available in two shades, Pale Bronze and Dark Bronze. The package remains the same. Charbert suggests that users of leg make-up ignore the mock seam line.

Jean Jordeau, Inc., promotes the use of its Zip deodorant for foot relief after discovering that soldiers applied it to correct foot soreness due to acid, skin-tenderizing perspiration and friction between foot and shoe.

New packages of Zip deodorant now carry an additional label suggesting this particular use of the product, with instructions to apply the cream at bedtime on the soles and sides of the feet and between the toes. Jordeau also an-

nounces that its Zip Victory stockings are being introduced in an improved form, following a winter of development in the laboratories. The improvements in the liquid stockings are said to be in texture and color, also elimination of light and dark spots.

Colgate - Palmolive - Peet Co. announces the appointment of Miss Beryl Blake to its executive staff, the first woman to be chosen for such a position. Miss Blake was formerly with Kathleen Mary Quinlan and Parfums Corday, the publicity for these two firms now being handled by Rowlands Associates.

Elizabeth Arden's portfolio of miniatures shows in picture form the recent coiffures created in Miss Arden's hair salons. The firm too has issued a make-up book for use of its representatives. The book contains swatches of colors for each make-up shade, names the colors with which the particular shade should be worn, lists the companion products to each make-up shade, describes each make-up item and outlines seven essential steps in make-up. The swatches of color, printed on white paper, with the information on color harmony and costume colors with which to be worn, are being distributed to customers. The color harmony is built around the lipstick shade.

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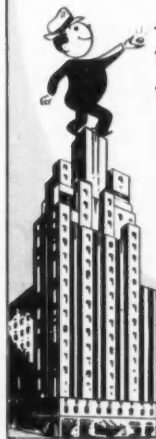
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Raw Materials Show Upward Trend

THE old law of supply and demand served to make markets interesting over the past month despite regulations governing prices and supply of a great many basic materials.

GUMS MOVE UPWARD

Several gums took the lead in the upward trend. Arabic registered an advance of nearly two cents per pound. Some holders of strictly No. 1 tragacanth withdrew from the market, while others reported they were entirely out of stocks. Despite recent arrivals, gum karaya displayed a stronger appearance with importers explaining that the quantities licensed for import had fallen far below requirements.

California lemon oil proved the most active item in the citrus group. One leading distributor withdrew from the market. Another announced that in the future he would limit contracts to a three months' period instead of six months. Demand for orange was brisk. Total sales, however, were not of sufficient volume to absorb the supply. Unlike lemon, many varieties including Brazilian, Floridan and West Indian oils were available for immediate delivery. Confectioners and manufacturers in the food trade were in the market for substantial quantities of citrus oils to complete orders for finished products for the armed forces and workers in war plants.

The position of lemon oil, it was said, would be a lot better if consumers would make every effort to return containers as quickly as possible.

FLORAL OILS STILL ON HAND

Among the floral oils, geranium and vetiver displayed a stronger tone. Some houses more favorably placed than others explained that there still seemed to be a fair supply available. However, this market is completely shut off

from the source of supply and, with hopes of an early peace dimmed by the slow though favorable developments in the war picture, many are wondering what they are going to do by the end of 1944 should fresh supplies of jasmin, tuberose and similar oils fail to reach here by that time.

For a while it was virtually impossible to locate offerings of peppermint oil in the country. Toward the close of last month, however, there were limited quantities of natural oil quoted at \$5.75 per pound. Local dealers' ceilings were around \$5.50, and as a result business remained at a standstill. No one showed any indication of violating price regulations. A great many complaints were heard. Some houses pointed out that regulations which prevent business at a small margin of profit tend to encourage black market operations.

CEDAR LEAF OIL SYNTHETICS

Oil cedar leaf developed a firmer tone in keeping with higher costs in the country. A fair inquiry was noted, though several makers of tincture of green soap were turning back to the use of synthetics or spike lavender instead of U.S.P. cedar leaf oil which was made available some months ago to replace French lavender oil.

Seed and spice oils developed a stronger tone. Ceylon cinnamon may still be purchased and imported but the war makes shipments and arrivals uncertain. Little caraway remains unsold and as a rule dealers are inclined to reserve small supplies for regular customers.

Other developments of interest included a general tightening in the alkali market. Caustic soda and soda ash were exceedingly difficult to obtain at times, especially in certain packages. The situation in chlorine has become

definitely stronger, and there were reports to the effect that a major producer of sodium bicarbonate had sold his entire output for several months.

Trade in aromatic chemicals was spotty. Most makers were of the opinion that total sales for April however would make a fair showing when books were closed despite the many problems that have appeared in consuming lines.

SHIPPING PROBLEM ON VANILLA

Most all Bourbon vanilla beans received here earlier in the year from Great Britain have been disposed of, and local trade factors say they cannot see any chance of getting shipments of beans direct from Madagascar despite the fact that prices have been stabilized at the source and an export quota established. The export quota in Madagascar has been set at about 125 tons for the first half of this year. Should steamers be made available it would probably take several months before goods were actually shipped by the time negotiations were completed, it was pointed out.

MEXICAN VANILLA ARRIVING

New crop Mexican cut vanilla is arriving quite freely. In view of a good demand, the new lots moved directly into consuming channels. The quality of the new crop has been found to be very satisfactory because of the good weather that was noted during the curing season. New crop whole Mexican beans will not be available in this market until June but it is expected they will also prove of good quality and more plentiful.

Tahiti beans displayed an unsettled tone because of competitive conditions. Reports were received in some directions to the effect that producers in the primary center have stabilized prices. Such a development, it was believed, would undoubtedly tend to check the downward trend in this market.

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Cinnamon	10.50@	32.00
Citronella, Ceylon	1.25@	1.35
Java	2.25@	3.00
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Egiron	2.15@	2.50
Eucalyptus	1.02@	1.07
Fennel, Sweet	3.25@	4.00
Geranium, Rose, Algerian	15.50@	16.00
Bourbon	14.00@	16.00
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Guaiac (Wood)	5.00@	6.10
Hemlock	1.25@	1.35
Substitute	.55@	.60
Juniper Berries	15.00@	18.00
Juniper Wood, imitation	.75@	.80
Laurel	5.00	Nom'l
Lavandin	7.10@	8.00
Lavender, French	10.00@	12.00
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Lemongrass	1.40@	1.65
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Opopanax	33.00	Nom'l
Orange, bitter	5.60@	6.00
Brazilian	1.35@	1.50
Calif. exp.	1.45@	2.25
Orris Root, abs. (oz.)	135.00@	
Artificial	36.00@	40.00
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Snake root	10.00@	12.75
Spearmint	3.35@	3.50
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White	3.25@	5.00
Valerian	30.00	Nom'l
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C 9	30.00@	32.00
C 10	24.00@	25.50
C 11	22.00@	26.00
C 12	30.00@	35.00
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Amyl Cinnamate Aldehyde	2.75@	5.00
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Amyl Phenyl Acetate	3.75@	4.00
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Benzyl Benzoate	1.10@	1.65
Benzyl Butyrate	3.25	Nom'l
Benzyl Cinnamate	6.00@	
Benzyl Formate	3.75	Nom'l
Benzyl Iso-eugenol	10.25@	11.25
Benzylidenacetone	2.25@	3.40
Borneol	1.80	Nom'l
Bornyl Acetate	2.00	Nom'l
Bromstyrol	5.00	Nom'l
Butyl Acetate	.11@	.14 1/2
Cinnamic Acid	3.75@	4.50
Cinnamic Alcohol	3.25@	4.00
Cinnamic Aldehyde	1.65@	1.75
Cinnamyl Acetate	10.40	Nom'l
Cinnamyl Butyrate	12.00@	14.00
Cinnamyl Formate	10.00@	13.00
Citral, C. P.	3.85@	4.25
Citronellol	6.50@	6.85
Citronellyl Acetate	4.00	Nom'l
Coumarin	3.00@	3.50

Cuminic Aldehyde	8.00@	11.25
Diethylphthalate	.24@	.33
Dimethyl Anthranilate	4.55@	5.00
Ethyl Acetate	.25@	.50
Ethyl Anthranilate	5.75@	7.50
Ethyl Benzoate	.90@	1.15
Ethyl Butyrate	.75@	.90
Ethyl Cinnamate	3.60@	4.50
Ethyl Formate	.60@	1.00
Ethyl Propionate	.80	Nom'l
Ethyl Salicylate	.90@	1.00
Ethyl Vanillin	6.50@	6.75
Eucalyptol	2.65@	3.00
Eugenol	2.85@	3.35
Geraniol, dom.	3.25@	4.00
Geranyl Acetate	3.50@	4.00
Geranyl Butyrate	4.00@	5.75
Geranyl Formate	4.25@	6.25
Heliotropin, dom.	3.50@	4.20
Hydrotopic Aldehyde	15.00@	18.00
Hydroxycitronellal	7.75@	10.00
Indol, C. P.	27.00@	32.00
Iso-borneol	1.10@	2.00
Iso-butyl Acetate	1.25@	2.00
Iso-butyl Benzoate	2.75@	3.00
Iso-butyl Salicylate	2.70	Nom'l
Iso-eugenol	4.00@	4.85
Iso-safrol	3.00	Nom'l
Linalool	7.25@	8.00
Linalyl Acetate 90%	7.50@	10.00
Linalyl Anthranilate	15.00@	
Linalyl Benzoate	10.50@	
Linalyl Formate	9.00@	12.00
Menthol, Japan	16.00	Nom'l
Chinese	16.00	Nom'l
Synthetic	15.75	Nom'l
Methyl Acetophenone	1.60@	2.00
Methyl Anthranilate	2.50@	2.80
Methyl Benzoate	.70@	1.10
Methyl Cellulose, f.o.b. ship-		
ping point	.60	Nom'l
Methyl Cinnamate	3.50@	4.00
Methyl Eugenol	3.50@	6.75
Methyl Heptenone	3.25@	
Methyl Heptene Carbonate	45.00	Nom'l
Methyl Iso-eugenol	5.85@	10.00
Methyl Octine Carbonate	24.00@	30.00
Methyl Paracresol	2.50	Nom'l
Methyl Phenylacetate	3.50@	4.00
Methyl Salicylate	.35@	.38
Musk Ambrette	6.00@	9.50
Ketone	6.00@	10.50
Xylene	1.75@	2.50
Neroline (ethyl ether)	2.00@	3.15
Paracresol Acetate	2.50	Nom'l
Paracresol Methyl Ether	2.60@	3.50
Paracresol Phenylacetate	6.50@	8.50
Phenylacetaldehyde 50%	3.00@	3.75
100%	4.50@	5.00
Phenylacetic Acid	3.25@	3.70
Phenylethyl Acetate	3.00@	5.00
Phenylethyl Alcohol	2.50@	3.00
Phenylethyl Anthranilate	16.00@	
Phenylethyl Butyrate	6.50@	10.00
Phenylethyl Propionate	5.00@	6.50
Phenyl Formate	12.50@	18.00
Phenyl Valerianate	16.00@	17.50
Phenylpropyl Acet.	10.00	Nom'l
Santalyl Acetate	20.00@	22.50
Skatol, C. P. (oz.)	5.35@	6.00
Styralyl Acetate	2.50@	3.00
Styralyl Alcohol	9.25@	12.00
Terpineol, C. P.	.50@	.75
Terpinyl Acetate	.90@	1.00
Thymene	.45@	
Thymol	2.25@	5.25
Vanillin (clove oil)	2.60	Nom'l
(quaiacal)	2.35	Nom'l
Lignin	2.35	Nom'l
Vetivert Acetate	25.00	Nom'l

(Continued on p. 83)

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(Continued from p. 81)

Violet Ketone Alpha	18.00	Nom'l
Beta	15.00	Nom'l
Methyl	6.50	Nom'l
Yara Yara (methyl ester)	1.95@	2.25

BEANS

Angostura	2.50@	3.00
Tanka Beans, Surinam	.70@	.95
Vanilla Beans		
Mexican, whole	10.50@	11.00
Mexican, cut	8.50@	9.00
Bourbon, whole	8.50@	9.00
South American	9.50@	10.00
Tahiti	3.50@	4.00

SUNDRIES AND DRUGS

Acetone	.08 1/2@	.09
Almond meal	.25@	.27
Ambergris, ounce	17.00@	20.00
Balsam, Copaiba	.46@	.54
Peru	1.30@	1.50
Beeswax, bleached, pure		
U. S. P.	.57	Nom'l
Yellow, refined	.52 1/2	Nom'l
Bismuth, sub-nitrate	1.20@	1.22
Borax, crystals, carlot ton	55.50@	58.00
Boric Acid, U. S. P., cwt.	6.95@	7.55
Calamine	.18@	.20
Calcium, phosphate	.08@	.08 3/4
Phosphate, tri-basic	.09@	.10
Camphor, domestic	.68@	.83
Castoreum	13.00@	26.00
Cetyl Alcohol	1.75	Nom'l
Pure	2.25	Nom'l

Chalk, precip.	.03 1/2@	.06 1/2
Cherry Laurel Water, carboy	5.75@	6.25
Citric Acid	.21	Nom'l
Civet, ounce	28.00@	49.00
Clay, Colloidal	.07@	.15
Cocoa Butter, lump	.25 1/2@	.27
Cyclohexanol (Hexalin)	.30@	.50
Fuller's Earth, ton	15.00@	33.00
Glycerine, C. P., drums	.18 1/4@	.18 3/4
Gum Arabic, white	.42@	.45
Amber	.18 3/4@	.19
Gum Benzoin, Siam	4.00@	4.25
Sumatra	.60@	.65
Gum Galbanum	1.80@	2.00
Gum Myrrh	.60@	.65
Henna, pwd.	.30@	.35
Kaolin	.05@	.07
Labdanum	3.25@	5.00
Lanolin, hydrous	.35@	.36
Anhydrous	.36@	.37
Magnesium, carbonate	.09@	.10 3/4
Stearate	.24@	.27
Musk, ounce	45.00@	50.00
Olibanum, tears	.25@	.30
Siftings	.11@	.13
Orange Flower Water, gal.	2.00@	2.50
Orris Root, African, pwd.	1.05@	1.20
Paraffin	.06 1/4@	.09
Peroxide	1.10@	1.75
Petrolatum, white	.06 1/4@	.08 1/2
Quince Seed	1.50@	1.75
Rice Starch	.09@	.10
Rose Leaves, red	5.45@	5.75
Rose Water, gal.	6.50@	8.00
Rosin M. per cwt.	4.30@	
Salicylic Acid	.35@	.40
Saponin	2.00@	2.50
Silicate, 40°, drums, works,		
100 pounds	.80@	1.20

Soap, neutral, white	.20@	.25
Sodium Carb.		
58% light, 100 pounds	1.35@	2.35
Hydroxide, 76% solid, 100 pounds	2.60@	3.75
Spermaceti	.26@	.27
Stearate Zinc	.30@	.31
Styrax	1.85@	2.25
Tartaric Acid	.64	Nom'l
Tragacanth, No. 1	4.10@	4.35
Triethanolamine	.34 1/2	Nom'l
Violet Flowers	1.75@	2.00
Zinc Oxide, U. S. P. bbls.	.10 1/2@	.10 3/4

OILS AND FATS

Castor No. 1, tanks	.13@	
Cocanut, Manila Grade,		
c.i.f., tanks	.0835@	
Corn, crude, Midwest, mill,		
tanks	.12 3/4@	
Corn Oil, distilled, bbls.	.15 1/2	Nom'l
Cotton, crude, Southeast,		
tanks	.12 3/4@	
Grease, white	.08 1/2@	
Lard	.1380@	
Lard Oil, common, No. 1		
bbls.	.14@	
Palm, Niger, drums	.08 1/4@	
Peanut, refined, barrels	.16 1/2	Nom'l
Red Oil, distilled, tanks	.12 1/2@	
Stearic Acid		
Triple Pressed	.18@	.19
Double Pressed	.15@	.16
Tallow, acidless, barrels	.14 1/4@	
Tallow, N. Y. C., extra	.08 3/4@	
Whale oil, refined	.1070@	



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